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RUSSIA	8-800-555-55-55	www.samsung.ru
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UKRAINE	8-800-502-0000	www.samsung.ua
UZBEKISTAN	8-10-800-500-55-500	www.samsung.com/kz_ru

SERIES
4

LCD TV

user manual

imagine the possibilities

Thank you for purchasing this Samsung product.
To receive more complete service, please register
your product at

www.samsung.com/global/register

Model _____ Serial No. _____



BN68-01464F-00




Contact SAMSUNG WORLDWIDE

If you have any questions or comments relating to Samsung products, please contact the SAMSUNG customer care centre.
(See back cover for more informations.)

Precautions When Displaying a Still Image

A still image may cause permanent damage to the TV screen

- Do not display a still image on the LCD panel for more than 2 hours as it can cause screen image retention. This image retention is also known as "screen burn". To avoid such image retention, reduce the degree of brightness and contrast of the screen when displaying a still image.
-  Watching the LCD TV in 4:3 format for a long period of time may leave traces of borders displayed on the left, right and center of the screen caused by the difference of light emission on the screen.
Playing a DVD or a game console may cause a similar effect to the screen.
Damages caused by the above effect are not covered by the Warranty.
- Displaying still images from Video games and PC for longer than a certain period of time may produce partial after-images.
To prevent this effect, reduce the 'brightness' and 'contrast' when displaying still images.

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Symbol


Press

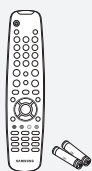

Note


One-Touch Button

Connecting and Preparing Your TV

List of Parts

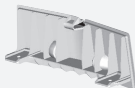
Please make sure the following items are included with your LCD TV. If any items are missing, contact your dealer.



Remote Control &
Batteries (AAA x 2)



Power Cord

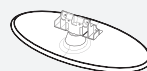


Cover-Bottom



M4xL 16

Stand Screw
X 4



Stand



Cleaning Cloth

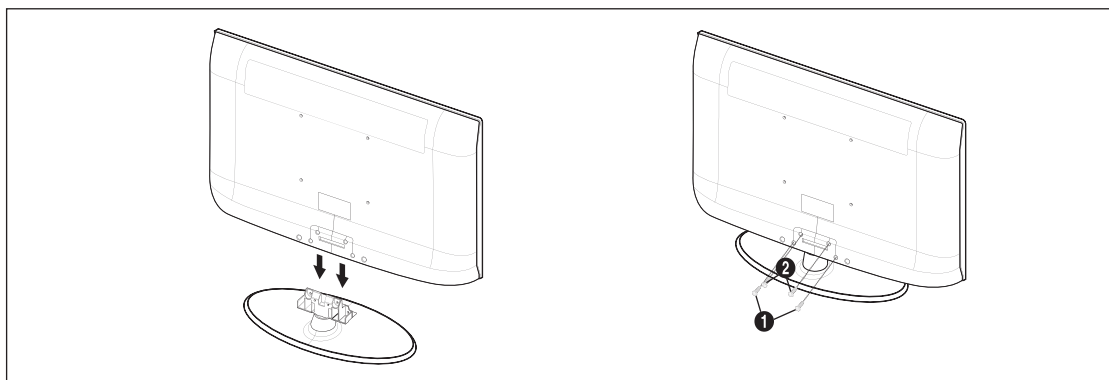
• Owner's Instructions

• Warranty card

• Safety Guide

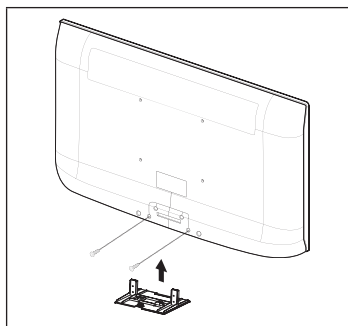
- Warranty card / Safety Guide (Not available in all locations)
- The stand and stand screw may not be included depending on the model.

Installing the Stand



1. Connect your LCD TV and the stand.
 - Two or more people should carry the TV.
 - Make sure to distinguish between the front and back of the stand when assembling them.
2. Fasten two screws at position ❶ and then fasten two screw at position ❷.
 - Stand the product up and fasten the screws. If you fasten the screws with the LCD TV placed down, it may lean to one side.
 - The stand is installed for models with the screen size of 37 inch and above.

Installing the Wall Mount Kit



Wall mount items (sold separately) allow you to mount the TV on the wall.

For detailed information on installing the wall mount, see the instructions provided with the Wall Mount items. Contact a technician for assistance when installing the wall mounted bracket.

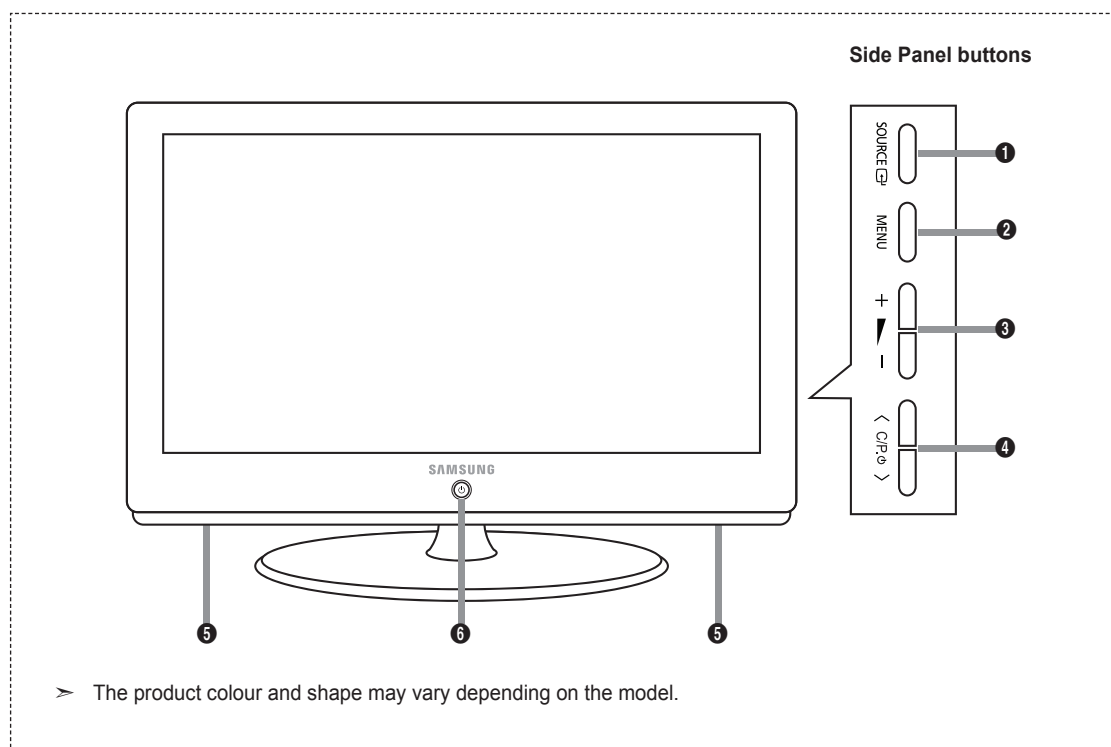
Samsung Electronics is not responsible for any damage to the product or injury to yourself or others if you elect to install the TV on your own.



Do not install your Wall Mount Kit while your TV is turned on. It may result in personal injury due to electric shock.

- Remove the stand and cover the bottom hole with a cap and fasten with two screws.

Viewing the Control Panel



1 SOURCE

Toggles between all the available input sources (TV, Ext.1, Ext.2, AV, S-Video, Component, PC, HDMI1, HDMI2/DVI, HDMI3). In the on-screen menu, use this button as you would use the **ENTER** button on the remote control.

2 MENU

Press to see an on-screen menu of your TV's features.

3 + -

Press to decrease or increase the volume. In the on-screen menu, use the + - buttons as you use the ◀ and ▶ buttons on the remote control.

4 < C/P >

Press to change channels. In the on-screen menu, use the < C/P > buttons as you use the ▲ and ▼ buttons on the remote control. (Without the Remote Control, you can turn on the TV by using the Channel buttons.)

5 Speakers

6 (Power)

Press to turn the TV on and off.

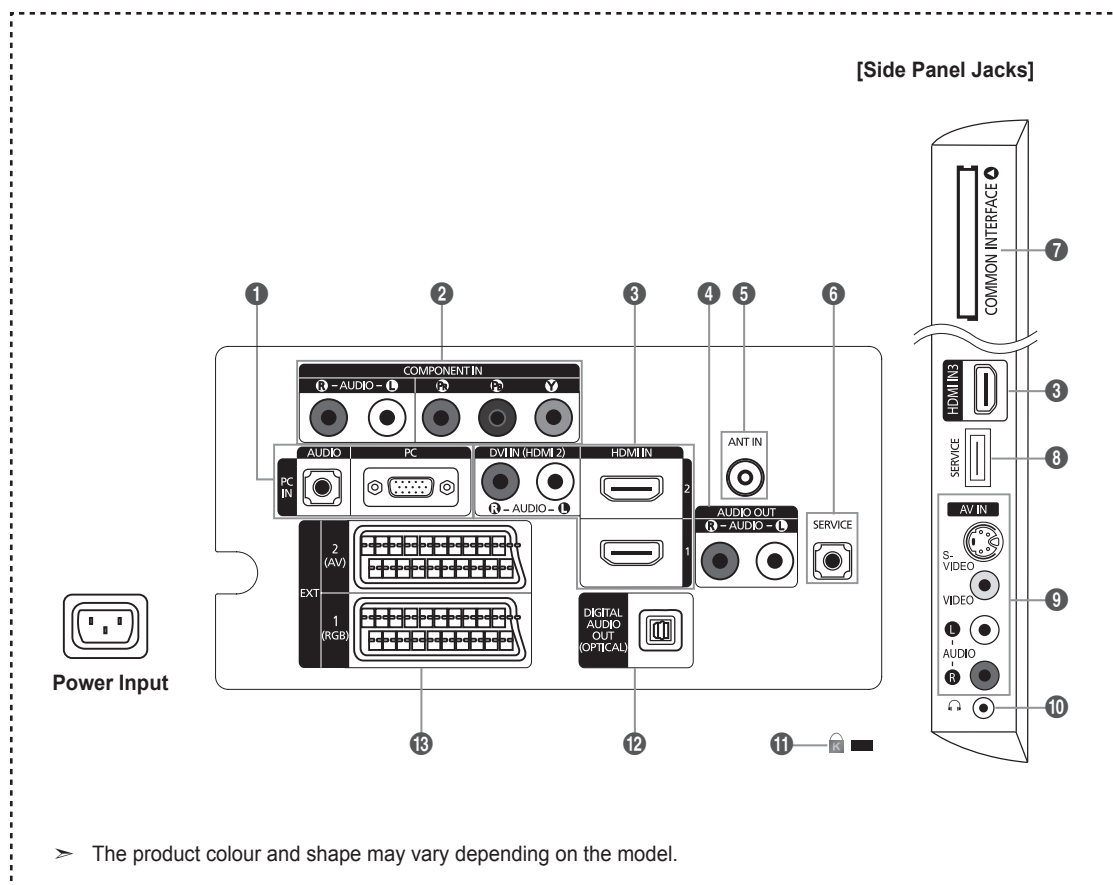
Remote Control Sensor

Aim the remote control towards this spot on the TV.

Power Indicator

Blinks and turns off when the power is on and lights up in stand-by mode.

Viewing the Connection Panel



- Whenever you connect an external device to your TV, make sure that power on the unit is turned off.
- When connecting an external device, match the colour of the connection terminal to the cable.

1 PC IN [PC] / [AUDIO]

- Connect to the video and audio output jack on your PC.

2 COMPONENT IN

- Connect component video cables (optional) to component connector ("P_R", "P_B", "Y") on the rear of your set and the other ends to corresponding component video out connectors on the DTV or DVD.
- If you wish to connect both the Set-Top Box and DTV (or DVD), you should connect the Set-Top Box to the DTV (or DVD) and connect the DTV (or DVD) to component connector ("P_R", "P_B", "Y") on your set.
- The P_R, P_B and Y connectors on your component devices (DTV or DVD) are sometimes labeled Y, B-Y and R-Y or Y, Cb and Cr.
- Connect RCA audio cables (optional) to "R - AUDIO - L" on the rear of your set and the other ends to corresponding audio out connectors on the DTV or DVD.

3 HDMI IN 1, HDMI IN 2, HDMI IN 3

- Supports connections between HDMI-connection-enabled AV devices (Set-Top Boxes, DVD players)
- No additional Audio connection is needed for an HDMI to HDMI connection.
- When using an HDMI/DVI cable connection, you must use the HDMI IN 2 jack.

➤ What is HDMI?

- "High Definition Multimedia interface" allows the transmission of high definition digital video data and multiple channels of digital audio.
- The HDMI/DVI terminal supports DVI connection to an extended device with the appropriate cable (not supplied). The difference between HDMI and DVI is that the HDMI device is smaller in size, has the HDCP (High Bandwidth Digital Copy Protection) coding feature installed, and supports.

DVI IN(HDMI2) [R-AUDIO-L]

- DVI audio outputs for external devices.

➤ Supported modes for HDMI/DVI and Component.

	480i	480p	576i	576p	720p	1080i
HDMI/DVI 50Hz	X	X	X	O	O	O
HDMI/DVI 60Hz	X	O	X	X	O	O
Component	O	O	O	O	O	O

4 AUDIO OUT [R-AUDIO-L]

- Connect RCA audio cables to AUDIO OUT [R-AUDIO-L] on the rear of your set and the other ends to corresponding audio in connectors on the Amplifier or DVD Home Theatre.

5 ANT IN

To view television channels correctly, a signal must be received by the set from one of the following sources:

- An outdoor aerial / A cable television network / A satellite network

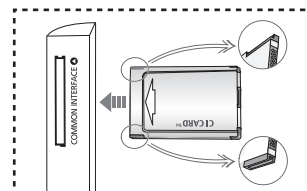
6 SERVICE

- Connector for SERVICE only.
- Connect this to the jack on the optional wall mount bracket. This will allow you to adjust the TV viewing angle using your remote control.

7 COMMON INTERFACE Slot

- When not inserting "CI CARD" in some channels, "Scrambled Signal" is displayed on the screen.
- The pairing information containing a telephone number, CI CARD ID, Host ID and other information will be displayed in about 2~3 minutes. If an error message is displayed, please contact your service provider.
- When the channel information configuration has finished, the message "Updating Completed" is displayed, indicating that the channel list is now updated.

- You must obtain a CI CARD from a local cable service provider. Remove the CI CARD by carefully pulling it out with your hands since dropping the CI CARD may cause damage to it.
- Insert the CI-Card in the direction marked on it.
- The place of the COMMON INTERFACE Slot may be different depending on its model.



8 SERVICE

- Connector for SERVICE only.

9 S-VIDEO or VIDEO / R-AUDIO-L

- Connect RCA or S-VIDEO cable to an appropriate external A/V device such as VCR, DVD or Camcorder.
- Connect RCA audio cables to "R-AUDIO-L" on your set and the other ends to corresponding audio out connectors on the A/V device.

10 HEADPHONES JACK

- Headphone may be connected to the headphone output on your set. While the head phone is connected, the sound from the built-in speakers will be disabled.

11 KENSINGTON LOCK (depending on the model)

- The Kensington Lock (optional) is a device used to physically fix the system when used in a public place.
- If you want to use a locking device, contact the dealer where you purchased the TV.
- The location of the Kensington Lock may be different depending on its model.

12 DIGITAL AUDIO OUT (OPTICAL)

- Connects a set of external headphones for private listening.
 - When the HDMI IN jacks are connected, the DIGITAL AUDIO OUT (OPTICAL) jack on the TV outputs 2 channel audio only. If you want to hear 5.1 channel audio, connect the Optical jack on the DVD player or Cable/Satellite Box directly to an Amplifier or Home Theater, not the TV.

13 EXT 1, EXT 2

Connector	Input			Output
	Video	Audio (L/R)	RGB	Video + Audio (L/R)
EXT 1	O	O	O	Only TV or DTV output is available. Output you can choose.
EXT 2	O	O		

- Inputs or outputs for external devices, such as VCR, DVD, video game device or video disc players.

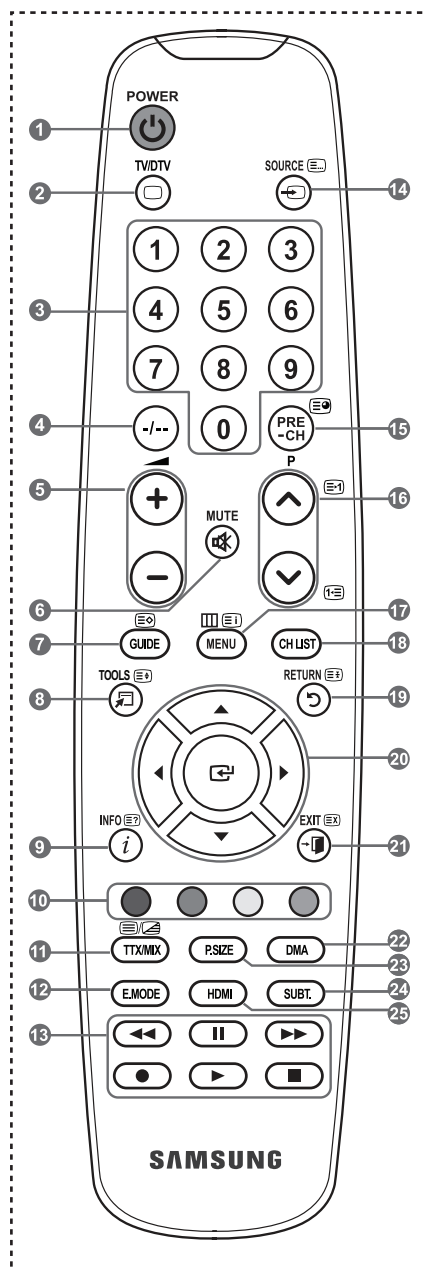
Remote Control

You can use the remote control up to a distance of about 23 feet from the TV.

- | | |
|--|---|
| <ul style="list-style-type: none"> ❶ Television Standby button ❷ Selects the TV mode directly ❸ Number buttons for direct channel access ❹ One/Two-digit channel selection ❺ \oplus: Volume increase
\ominus: Volume decrease ❻ Temporary sound switch-off ❼ Electronic Program Guide (EPG) display ❽ Use to quickly select frequently used functions. ❾ Use to see information on the current broadcast ❿ Colour buttons :
Use these buttons in the Channel list, etc. ⓫ Press to select the optional display and sound modes for sports, cinema and games. ⓬ Use these buttons in the DMA, and Anynet*.
(\odot: This remote can be used to control recording on Samsung recorders with the Anynet* feature) ⓭ Available source selection ⓮ Previous channel ⓯ $\text{P}\odot$: Next channel
$\text{P}\odot$: Previous channel ⓰ Displays the main on-screen menu ⓱ Displays the Channel List on screen ⓲ Returns to the previous menu ⓳ Control the cursor in the menu | <ul style="list-style-type: none"> ⓴ Exit the on-screen menu ⓵ Use this when connecting a SAMSUNG DMA (Digital Media Adapter) device through an HDMI interface and switching to DMA mode. (The DMA button is optional.)
For more information on the operating procedures, refer to the user manual of the DMA.
This button is available when "Anynet" (HDMI-CEC) is "On" (see page 50) ⓶ Picture size selection ⓷ Digital subtitle display ⓸ Selects the HDMI mode directly. |
|--|---|

Teletext Functions

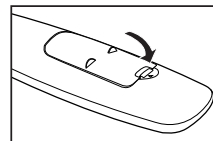
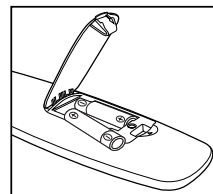
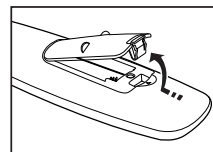
- ❶ Exit from the teletext display
- ❷ Teletext store
- ❸ Teletext size selection
- ❹ Teletext reveal
- ❺ Fasttext topic selection
- ❻ Alternately select Teletext, Double, or Mix.
- ❼ Teletext mode selection (LIST/FLOF)
- ❽ Teletext sub page
- ❾ $\text{P}\odot$: Teletext next page
 $\text{P}\odot$: Teletext previous page
- ⓫ Teletext index
- ⓬ Teletext hold
- ⓭ Teletext cancel



➤ The performance of the remote control may be affected by bright light.

Installing Batteries in the Remote Control







1. Lift the cover at the back of the remote control upward as shown in the figure.
2. Install two AAA size batteries.
 - Make sure to match the "+" and "-" ends of the batteries with the diagram inside the compartment.
3. Replace the cover.
 - Remove the batteries and store them in a cool, dry place if you won't be using the remote control for a long time.



-
- If the remote control doesn't work, check the following:
 1. Is the TV power on?
 2. Are the plus and minus ends of the batteries reversed?
 3. Are the batteries drained?
 4. Is there a power outage or is the power cord unplugged?
 5. Is there a special fluorescent light or neon sign nearby?
-





Switching On and Off

The mains lead is attached to the rear of your set.


1. Plug the mains lead into an appropriate socket.
 - The standby indicator lights up on your set.
2. Press the  button on your set.
 - You also can press the **POWER**  button or the **TV/DTV** button on the remote control to turn the TV on.
 - The programme that you were watching last is reselected automatically.
3. Press the numeric button (0~9) or channel up/down ( / ) button on the remote control or **C/P**  button on your set.
 - When you switch the set on for the very first time, you will be asked to choose language in which the menus are to be displayed.
4. To switch your set off, press the **POWER**  button again.

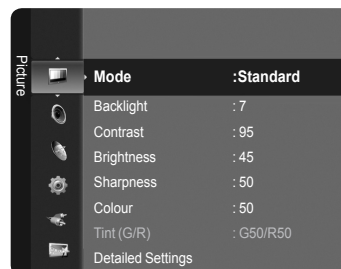
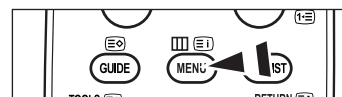
Placing Your Television in Standby Mode

Your set can be placed in standby mode in order to reduce the power consumption. The standby mode can be useful when you wish to interrupt viewing temporarily (during a meal, for example).

1. Press the **POWER**  button on the remote control.
 - The screen is turned off and a red standby indicator appears on your set.
2. To switch your set back on, simply press the **POWER** , numeric buttons (0~9), **TV/DTV** button or channel up/down ( / ) button again.
 - Do not leave your set in standby mode for long periods of time (when you are away on holiday, for example). It is best to unplug the set from the mains and aerial.


Viewing the Menus

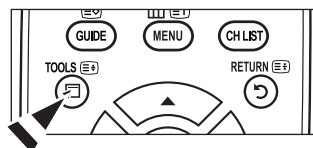
1. With the power on, press the **MENU** button.
The main menu appears on the screen.
The menu's left side has icons: Picture, Sound, Channel, Setup, Input, Application.
2. Press the **▲** or **▼** button to select one of the icons.
Then press the **ENTER**  button to access the icon's sub-menu.
3. Press the **EXIT** button to exit.
➤ The on-screen menus disappear from the screen after about one minute.



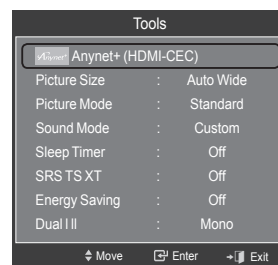
Using the TOOLS Button

You can use the **TOOLS** button to select your frequently used functions quickly and easily. The "Tools" menu changes depending on which external input mode you are viewing.

1. Press the **TOOLS** button.
The "Tools" menu will appear.
2. Press the **▲** or **▼** button to select a menu.
3. Press the **▲/▼/◀/▶/ENTER**  buttons to display, change, or use the selected items. For a more detailed description of each function, refer to the corresponding page.






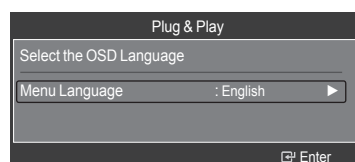
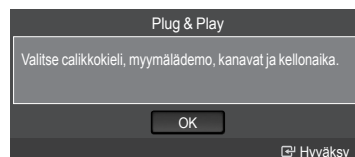
- **Anynet+ (HDMI-CEC)**: see page 50
- **Picture Size**: see page 29
- **Picture Mode**: see page 27
- **Sound Mode**: see page 32
- **Sleep Timer**: see page 36
- **SRS TS XT**: see page 32
- **Energy Saving**: see page 43
- **Dual I II**: see page 34
- **Auto Adjustment**: see page 48











Plug & Play Feature



When the TV is initially powered on, basic settings proceed automatically and subsequently.

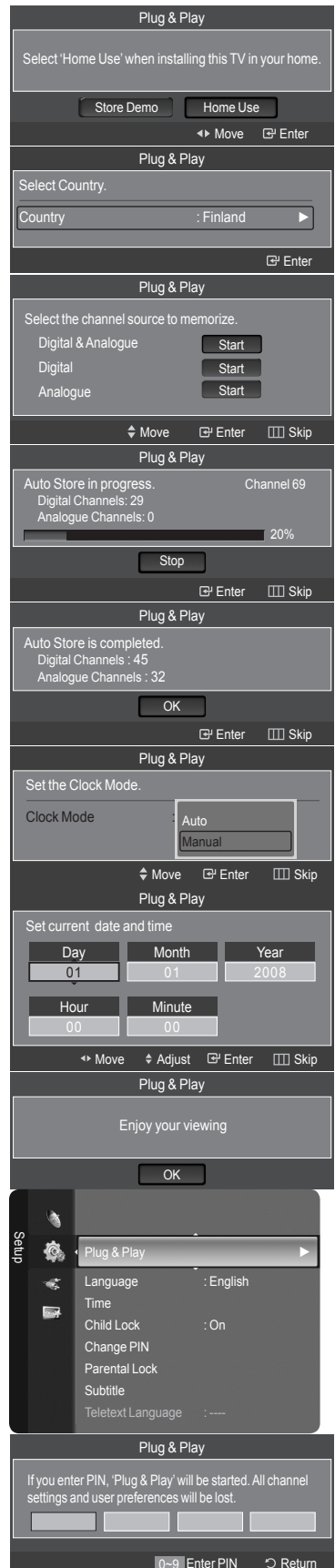
1. Press the **POWER** button on the remote control.
The message "Valitse calikkokieli, myymälädemo, kanavat ja kellonaika." is displayed.
2. Press the **ENTER**  button, then "Valitse kuvaruutuvalikon kieli." menu is automatically displayed. Press the **ENTER**  button.
3. Select the appropriate language by pressing the **▲** or **▼** button. Press the **ENTER**  button to confirm your choice.



4. Press the ◀ or ▶ button to select "Store Demo" or "Home Use", then the **ENTER**  button.
 - We recommend setting the TV to "Home Use" mode for the best picture in your home environment.
 - "Store Demo" mode is only intended for use in retail environments.
 - If the unit is accidentally set to "Store Demo" mode and you want to return to "Home Use" (Standard): Press the Volume button on the TV. When the volume OSD is displayed, press and hold the **MENU** button on the TV for 5 seconds.
5. Press the **ENTER**  button. Select the appropriate country by pressing the ▲ or ▼ button. Press the **ENTER**  button to confirm your choice.
6. Press the ▲ or ▼ button to select the channel source to memorize. Press the **ENTER**  button to select "Start". The settings differ according to the selected country. For more details, refer to pages 11~14.
 - Digital & Analogue: "Digital" and "Analogue" channels.
 - Digital: "Digital" channels.
 - Analogue: "Analogue" channels.
 - The channel search will start and end automatically.
 - Press the **ENTER**  button at any time to interrupt the memorization process.
 - After all the available channels are stored, the message "Set the Clock Mode." is displayed.
7. Press the **ENTER**  button to select the "Clock Mode". Press the ▲ or ▼ button to select "Manual", then Press the **ENTER**  button.
 - If you select "Auto", The message "Enjoy your viewing" is displayed.
 - If you have received a digital signal, the time will be set automatically.
8. Select the "Day", "Month", "Year", "Hour", or "Minute" by pressing the ◀ or ▶ button. Set the "Day", "Month", "Year", "Hour", or "Minute" by pressing the ▲ or ▼ button.
 - You can also set the "Month", "Day", "Year", "Hour" and "Minute" by pressing the number buttons on the remote control.
9. The message "Enjoy your viewing" is displayed. When you have finished, press the **ENTER**  button.





If you want to reset this feature...

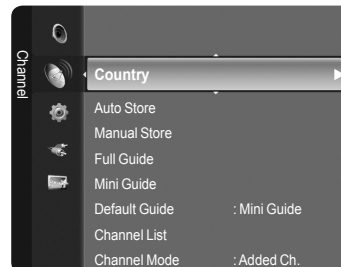
1. Press the **MENU** button to display the menu. Press the ▲ or ▼ button to select "Setup", then press the **ENTER**  button.
2. Press the **ENTER**  button again to select "Plug & Play".
3. Enter your 4 digit PIN number. The default PIN number of a new TV set is "0-0-0-0".
 - If you want to change PIN number, refer to page 39.
 - For further details on setting up options, refer to the pages 9~10.
 - The "Plug & Play" feature is only available in the TV mode.



Channel Control



Setting the Country

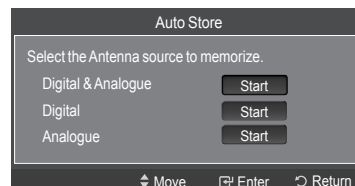
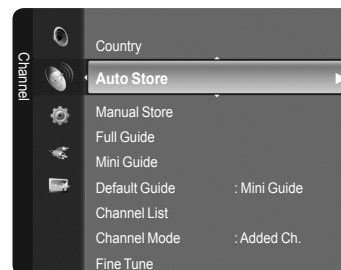
1. Press the **MENU** button to display the menu.
Press the **▲** or **▼** button to select "Channel", then press the **ENTER**  button.
2. Press the **▲** or **▼** button to select "Country", then press the **ENTER**  button.
3. Press the **▲** or **▼** button to select "Analogue Channel" or "Digital Channel", then press the **ENTER**  button.
 - If a channel is locked using the "Child Lock" function, the PIN input window appears (refer to page 38). Enter your 4 digit PIN number.
4. Select the appropriate country by pressing the **▲** or **▼** button.
Press the **ENTER**  button to confirm your choice.








Storing Channels Automatically

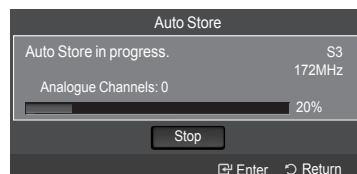
You can scan for the frequency ranges available to you (and availability depends on your country). Automatically allocated programme numbers may not correspond to actual or desired programme numbers. However, you can sort numbers manually and clear any channels you do not wish to watch.

1. Press the **MENU** button to display the menu.
Press the **▲** or **▼** button to select "Channel", then press the **ENTER**  button.
2. Press the **▲** or **▼** button to select "Auto Store", then press the **ENTER**  button.
 - If a channel is locked using the "Child Lock" function, the PIN input window appears (refer to page 38). Enter your 4 digit PIN number.
3. Press the **▲** or **▼** button to select the channel source to memorize.
 - Digital & Analogue: "Digital" and "Analogue" channels.
 - Digital: "Digital" channels.
 - Analogue: "Analogue" channels.
 - Scans for all channels with active broadcast stations and stores them in the TV's memory.







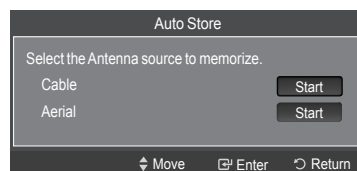
Analogue




4. Press the **ENTER**  button to select "Start".
- If you want to stop Auto Store, press the **ENTER**  button. The "Stop Auto Store?" message will be displayed. Select "Yes" by pressing the  or  button, then press the **ENTER**  button.



Digital & Analogue / Digital

4. The update procedures differ depending on the selected "Country". Update the channel list by selecting an appropriate option.
- ◆ **When the "Country" was set to "Finland"**
Press the  or  button to select "Auto", "Cable" or "Aerial". Press the **ENTER**  button.
Press the **ENTER**  button to select "Start".
 - **Cable**: Scans cable channels.
 - **Aerial**: Scans aerial channels.
 - This product cannot scan both cable and aerial channels at the same time.
 - When it has finished, the number of scanned services will be displayed.
 - The existing favourite channel list will not be deleted when the channel list is updated.



- ◆ **When the "Country" was set to "Sweden", or "Denmark"**
Press the  or  button to select "Cable" or "Aerial". Press the **ENTER**  button.

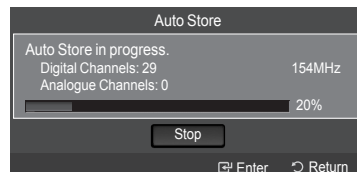
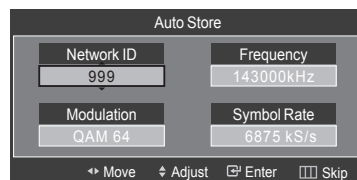
When selecting "Cable":

- **Frequency**: Displays the frequency for the channel. (Differs in each country)
- **Modulation**: Displays available modulation values.
- **Symbol Rate**: Displays available symbol rates.
- **Network ID**: Displays the network identification code.

Press the red button to start the scan for digital services. When it has finished, channels are updated in the channel list.

When selecting "Aerial":

Press the **ENTER**  button to select "Start".

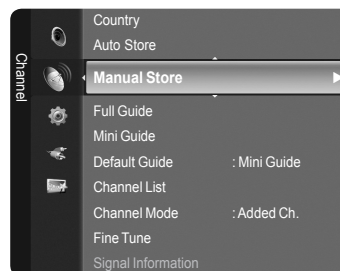


- ◆ **When the "Country" was set to "Norway"**
Press the **ENTER**  button to select "Start".

Storing Channels Manually

You can store television channels, including those received via cable networks. When storing channels manually, you can choose:

- Whether or not to store each of the channels found.
 - The programme number of each stored channel which you wish to identify.
1. Press the **MENU** button to display the menu.
Press the **▲** or **▼** button to select "Channel", then press the **ENTER** button.
 2. Press the **▲** or **▼** button to select "Manual Store", then press the **ENTER** button.



Digital Channel

3. Press the **▲** or **▼** button to select "Digital Channel", then press the **ENTER** button.
 - If a channel is locked using the "Child Lock" function, the PIN input window appears (refer to page 38). Enter your 4 digit PIN number.
4. The update procedures differ depending on the selected "Country". Update the channel list by selecting the appropriate option.

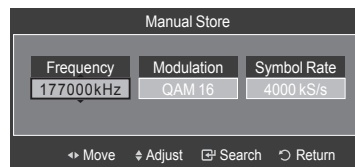
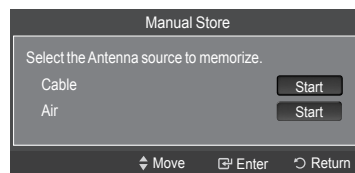
◆ When the "Country" was set to "Finland"

Press the **▲** or **▼** button to select "Cable" or "Aerial", then press the **ENTER** button.

When selecting "Cable":

- **Frequency:** Displays the frequency for the channel. (Differs in each country)
- **Modulation:** Displays available modulation values.
- **Symbol Rate:** Displays available symbol rates.

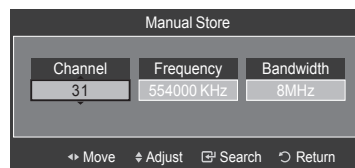
Press the **ENTER** button to start the scan for digital services. When it has finished, channels are updated in the channel list.



When selecting "Aerial":

- **Channel:** Channel "21" to "69" in sequence are displayed (depending on the country)
- **Frequency:** The frequency available in the Channel group is displayed.
- **Bandwidth:** The available bandwidths are 8 MHz.

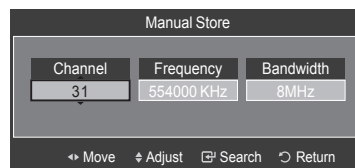
Press the **ENTER** button to start the scan for digital services. When it has finished, channels are updated in the channel list.



◆ When the "Country" was set to "Sweden", "Denmark", or "Norway"


- **Channel:** Channel "21" to "69" in sequence are displayed (depending on the country)
- **Frequency:** The frequency available in the Channel group is displayed.
- **Bandwidth:** The available bandwidths are 8 MHz.

Press the **ENTER** button to start the scan for digital services. When it has finished, channels are updated in the channel list.



5. When it has finished, the number of scanned services will be displayed.
6. Press the **EXIT** button to exit.

Analogue Channel

3. Press the ▲ or ▼ button to select "Analogue Channel", then press the **ENTER**  button.
 - If a channel is locked using the "Child Lock" function, the PIN input window appears (refer to page 38).
4. Press the ◀ or ▶ button to select the required item below.
Press the ▲ or ▼ button to adjust to the setting satisfied.
5. Press the **EXIT** button to exit.

◆ Programme (Programme number to be assigned to a channel)

Press the ▲ or ▼ button until you find the correct number.

- You can also select the channel number directly by pressing the numeric buttons (0~9).

◆ Colour System: Auto/PAL/SECAM/NTSC4.43

Press the ▲ or ▼ button to select the required colour standard.

◆ Sound System: BG/DK/I/L

Press the ▲ or ▼ button to select the required sound standard.

◆ Channel (When you know the number of the channel to be stored)

Press the ▲ or ▼ button to select **C** (Air channel) or **S** (Cable channel).
Press the ▶ button, then press the ▲ or ▼ button to select the required number.


- You can also select the channel number directly by pressing the numeric buttons (0~9).
- If there is abnormal sound or no sound, reselect the sound standard required.

◆ Search (When you do not know the channel numbers)

Press the ▲ or ▼ button to start the search.

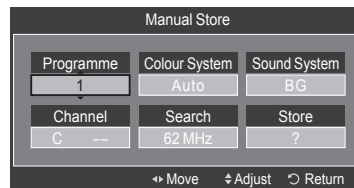
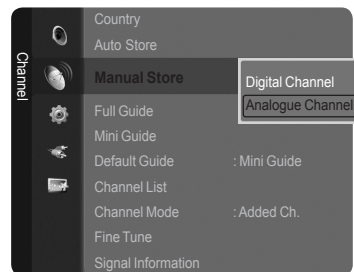
The tuner scans the frequency range until the first channel or the channel that you selected is received on the screen.

◆ Store (When you store the channel and associated programme number)

Set to OK by pressing the **ENTER**  button.



➤ Channel mode

- **P** (Programme mode): When completing tuning, the broadcasting stations in your area have been assigned to position numbers from P00 to P99. You can select a channel by entering the position number in this mode.
- **C** (Air channel mode): You can select a channel by entering the assigned number to each air broadcasting station in this mode.
- **S** (Cable channel mode): You can select a channel by entering the assigned number for each cable channel in this mode.



Viewing the EPG (Electronic Programme Guide) Information

The EPG (Electronic Programme Guide) information is provided by the broadcasters. Programme entries may appear blank or out of date as a result of the information broadcast on a given channel. The display will dynamically update as soon as new information becomes available.


1. Press the **MENU** button to display the menu.
2. Press the **▲** or **▼** button to select "Channel", then press the **ENTER**  button.
3. Press the **▲** or **▼** button to select "Full Guide" or "Mini Guide" then press the **ENTER**  button.


◆ Mini Guide

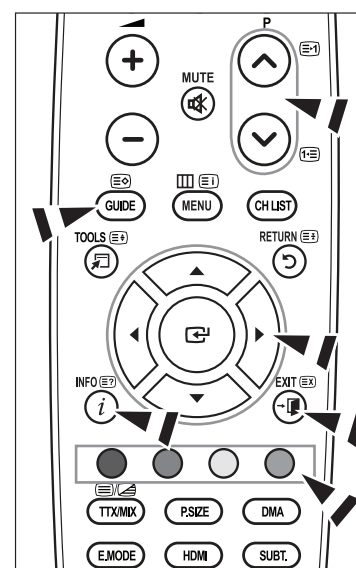
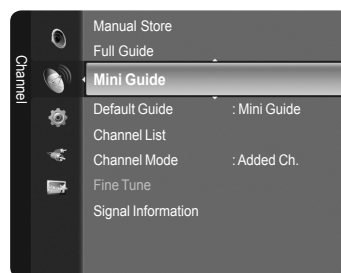
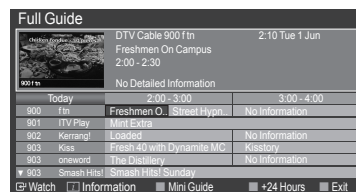
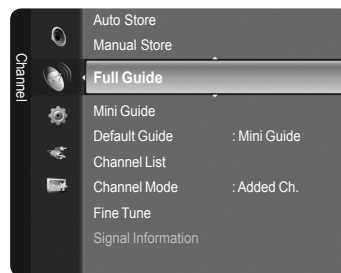
The information of each program is displayed by each line on the current channel Mini Guide screen from the current program onwards according to the program starting time order.

◆ Full Guide

Displays the programme information as time ordered One hour segments. Two hours of programme information is displayed which may be scrolled forwards or backwards in time.




To...	Then...
Watch a programme in the EPG list	Select a programme by pressing the ▲ , ▼ , ◀ , ▶ button.
Exit the guide	Press the blue button
<p>➤ If the next program is selected, it is scheduled with the clock icon displayed. If the ENTER  button is pressed again, press the ◀, ▶ button to select Cancel Schedules, the scheduling is canceled with the clock icon gone.</p>	
View programme information	<ul style="list-style-type: none"> • Select a programme of your choice by pressing the ▲, ▼, ◀, ▶ button. • Then press the INFO button when the programme of your choice is highlighted. • The programme title is on the upper part of the screen center.
<p>➤ Please click on INFO button for the detailed information. Channel Number, Running Time, Status Bar, Parental Level, Video Quality Information (HD/SD), Sound Modes, Subtitle or Teletext, languages of Subtitle or Teletext and brief summary of the highlighted programme are included on the detailed information. "... " will be appeared if the summary is long.</p>	
Toggle between the "Mini Guide" or "Full Guide"	Press the red button repeatedly.
In Full Guide	<ul style="list-style-type: none"> • Scrolls backwards quickly (24 hours). • Press the green button repeatedly. • Scrolls forwards quickly (24 hours). • Press the yellow button repeatedly.
In Mini Guide	<ul style="list-style-type: none"> • Display next page quickly. • Press the green button. • Display previous page quickly. • Press the yellow button.

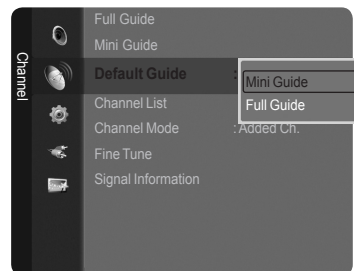
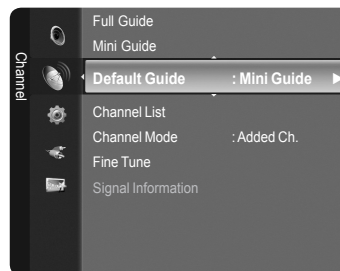
-  You can also display the guide menu simply by pressing the **GUIDE** button. (To configure the "Default Guide", refer to the descriptions on page 16.)




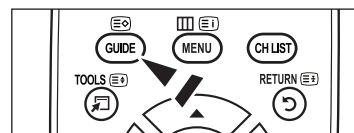
Setting the Default Guide

You can decide whether to display either the "Mini Guide" or the "Full Guide" when the **GUIDE** button on the remote control is pressed.

1. Press the **MENU** button to display the menu.
Press the **▲** or **▼** button to select "Channel", then press the **ENTER**  button.
2. Press the **▲** or **▼** button to select "Default Guide", then press the **ENTER**  button.
3. Select "Mini Guide" or "Full Guide" using the **▲** or **▼** button, and press the **ENTER**  button.
4. Press the **EXIT** button to exit.



 You can select these options by simply pressing the **GUIDE** button on the remote control.



Managing Channels

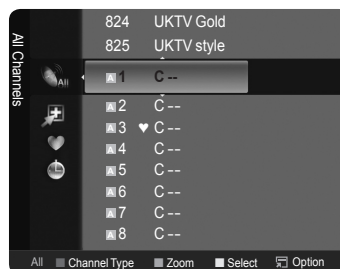
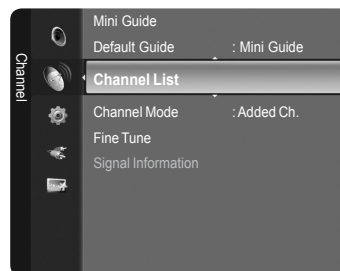
Using this menu, you can Add/Delete or set Favourite channels and use the program guide for digital broadcasts.

Viewing All Channels

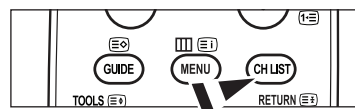
Show all currently available channels.

To use the Channel List function, operate the "Auto Store" first.

1. Press the **MENU** button.
Press the **▲** or **▼** button to select "Channel", then press the **ENTER** button.
Press the **▲** or **▼** button to select "Channel List", then press the **ENTER** button.
2. Press the **◀** button to select "Added Channels".
3. Press the **▲** or **▼** button to select "All Channels".
➤ Shows all currently available channels.
Press the **ENTER** button.
4. Press the **▲** or **▼** button to select a channel to view, then press the **ENTER** button. You can watch the selected channel.

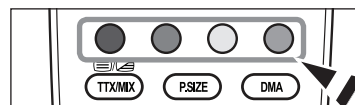


- Press the **CH LIST** button on the remote control to bring up the channel lists.



Using the Colour buttons on the Remote with the Channel List

- **Red (Channel Type):** Toggle between your "TV", "Radio", "Data/Other" and "All".
- **Green (Zoom):** Enlarges or shrinks a channel number.
- **Yellow (Select):** Selects multiple channel lists.
- **TOOLS (Option):** Displays the "Delete"(or "Add"), "Add to Favourite"(or "Delete from Favourite"), "Lock", "Timer Viewing", "Edit Channel Name", "Sort", "Select All", "Deselect All" or "Auto Store" menu. (The Options menus may differ depending on the situation.)




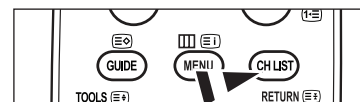
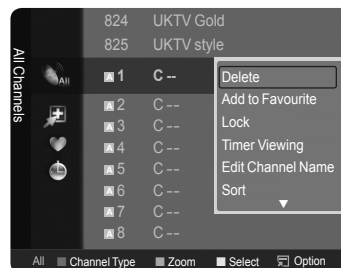
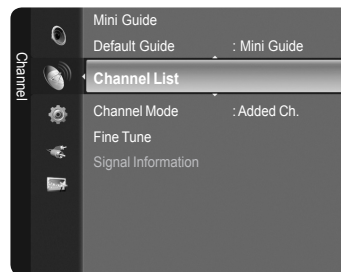
- A gray-coloured channel indicates the channel has been deleted. The "Add" menu only appears for deleted channels.
- A channel marked with the "♥" mark means the channel has been set as a Favourite. The "Delete from Favourite" menu only appears for channels with the "♥" mark.

Erasing and Adding Channels

You can delete or add a channel to display the channels you want.

1. Press the **MENU** button.
Press the ▲ or ▼ button to select "Channel", then press the **ENTER** button. Press the ▲ or ▼ button to select "Channel List", then press the **ENTER** button.
2. Press the ◀ button to select "Added Channels".
3. Press the ▲ or ▼ button to select "All Channels".
➤ Shows all currently available channels.
Press the **ENTER** button.
4. Press the ▲ or ▼ button to select a channel to delete, then press the **TOOLS** button.
5. Press the **ENTER** button to select "Delete".
➤ All deleted channels will be shown on "All Channels" menu.
6. Press the **EXIT** button to exit.
➤ You can also delete a channel to the "Added Channels" menu in the same manner.
➤ To Add (Restore) a channel back to the Added Channel List, follow steps 1-3 above, press the ▲ or ▼ button to select a channel to add, then press the **TOOLS** button. Press the **ENTER** button to select Add.


 Press the **CH LIST** button on the remote control to bring up the channel lists.

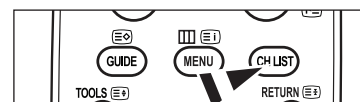
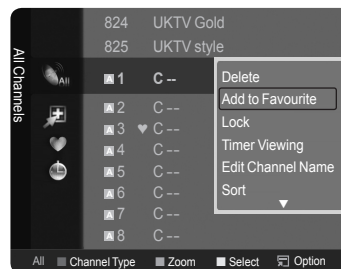
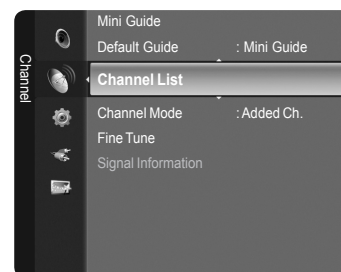


Setting Your Favourite Channels

You can set channels you watch frequently as favourites.

1. Press the **MENU** button.
Press the ▲ or ▼ button to select "Channel", then press the **ENTER** button. Press the ▲ or ▼ button to select "Channel List", then press the **ENTER** button.
2. Press the ◀ button to select "Added Channels".
3. Press the ▲ or ▼ button to select "All Channels".
➤ Shows all currently available channels.
Press the **ENTER** button.
4. Press the ▲ or ▼ button to select a channel as a favourite channel.
➤ **Adding multiple channels to Favourites**
Press the ▲ or ▼ button to select the desired channel in the channel list. Then press the yellow button. Repeat the above operation to select multiple channels. The ✓ mark appears to the left of the selected channels.
5. Press the **TOOLS** button.
6. Press the ▲ or ▼ button to select "Add to Favourite", then press the **ENTER** button. The "♥" symbol will be displayed and the channel will be set as a favourite.
7. To cancel your favourite channel selection, press the **TOOLS** button when a favourite channel is selected.
Press the ▲ or ▼ button to select "Delete from Favourite", then press the **ENTER** button.
The channel is deleted from "Favourites" and the "♥" mark also disappears.
Press the **EXIT** button to exit.
➤ You can also Add or Delete a channel from Favourites in the "Added Channels" menu in the same manner.
➤ All favourite channels will be shown on "Favourite" menu.

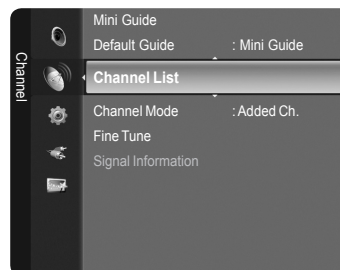
 Press the **CH LIST** button on the remote control to bring up the channel lists.



Locking and Unlocking Channels

This function is available only when the "Child Lock" is set to "on". (see page 38)

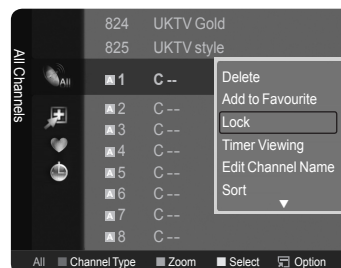
1. Press the **MENU** button.
Press the ▲ or ▼ button to select "Channel", then press the **ENTER** button.
Press the ▲ or ▼ button to select "Channel List", then press the **ENTER** button.
2. Press the ◀ button to select "Added Channels".
3. Press the ▲ or ▼ button to select "All Channels".
➤ Shows all currently available channels.
Press the **ENTER** button.



◆ When the "Country" was set to "Sweden", or "Denmark"

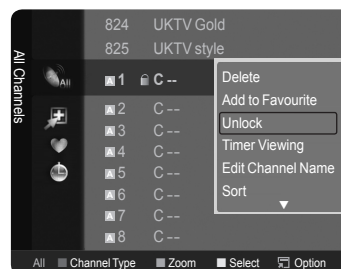
Locking channels

4. Press the ▲ or ▼ button to select the channels you want to lock, then press the **TOOLS** button.
5. Press the ▲ or ▼ button to select "Lock", then press the **ENTER** button.
6. Enter your 4 digit PIN number.
➤ The "🔒" symbol will be displayed and the channel will be locked.
➤ The default PIN number of a new TV set is "0-0-0-0".
➤ If you want to change PIN number, refer to page 39.
7. Press the **EXIT** button to exit.





Unlocking channels

4. Press the ▲ or ▼ button to select the channels you want to Unlock, then press the **TOOLS** button.
5. Press the ▲ or ▼ button to select "Unlock", then press the **ENTER** button.
6. Enter your 4 digit PIN number.
➤ The channel is unlocked and the "🔒" mark also disappears.
➤ The default PIN number of a new TV set is "0-0-0-0".
➤ If you want to change PIN number, refer to page 39.
7. Press the **EXIT** button to exit.



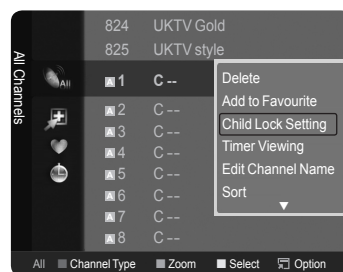
◆ When the “Country” was set to “Norway”

Locking channels




4. Press the ▲ or ▼ button to select the channels you want to lock, then press the **TOOLS** button.
5. Press the ▲ or ▼ button to select “Child Lock Setting”, then press the **ENTER**  button.
6. Press the ▲ or ▼ button to select “User” or “Always”, then press the **ENTER**  button.

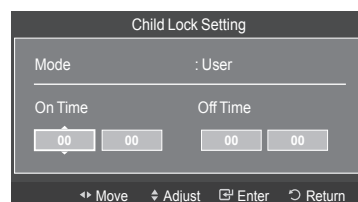
- **User:** Locks the channel with the “Child Lock” function for the user-configured period of time only. Select “User” and set the required time using the ▲, ▼, or the number buttons.
- **Always:** Locks the channel all the time with the “Child Lock” function.

7. Press the **EXIT** button to exit.



Unlocking channels

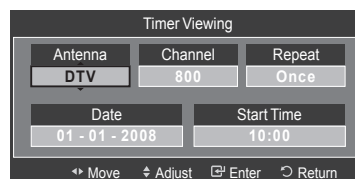
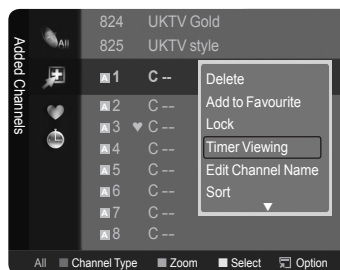
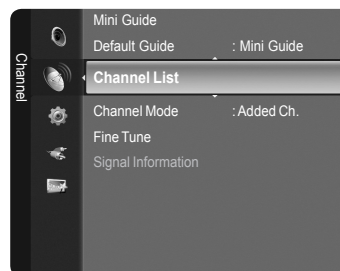
4. Press the ▲ or ▼ button to select the channels you want to Unlock, then press the **TOOLS** button.
5. Press the ▲ or ▼ button to select “Child Lock Setting”, then press the **ENTER**  button.
6. Enter your 4 digit PIN number.
 - The channel is unlocked and the “” mark also disappears.
 - The default PIN number of a new TV set is “0-0-0-0”.
 - If you want to change PIN number, refer to page 39.
7. Press the ▲ or ▼ button to select “Off”, then press the **ENTER**  button.
8. Press the **EXIT** button to exit.



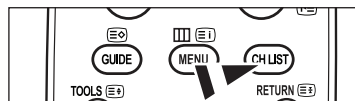
Reserving a Program (Timer Viewing)

If you reserve a program you want to watch, the channel is automatically switched to the reserved channel in the Channel List; even when you are watching another channel. To reserve a program, set the current time first. See pages 35~36.

1. Press the **MENU** button.
Press the **▲** or **▼** button to select "Channel", then press the **ENTER** button.
Press the **▲** or **▼** button to select "Channel List", then press the **ENTER** button.
 2. Press the **▲** or **▼** button to select a channel, then press the **TOOLS** button.
 3. Press the **▲** or **▼** button to select "Timer Viewing", then press the **ENTER** button. The Reserve a Program (Timer Viewing) screen appears.
 4. Press the **▲/▼/◀/▶** buttons to reserve a program and then press the **ENTER** button. Reserving a program has been completed.
Press the **EXIT** button to exit.
- You can also reserve a program in the "All Channels" or "Favourite" menus using the same procedures.
 - For information on how to confirm a viewing reservation, refer to page 22. Only memorized channels can be reserved.
 - You can set the channel, month, day, year, hour and minute directly by pressing the number buttons on the remote control.



- Press the **CH LIST** button on the remote control to bring up the channel lists.

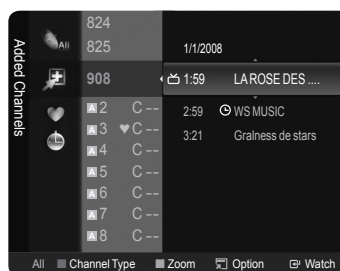


Digital Program Guide and Viewing Reservation

When a digital channel is selected, and you press the **►** button, the Program Guide for the channel appears. You can reserve a program according to the procedures described above.




: A program currently being broadcast.

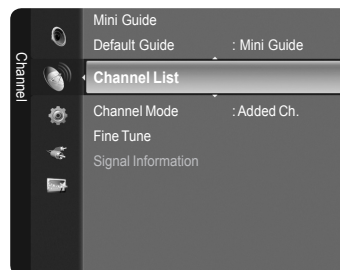
: A reserved program





Confirming a Viewing Reservation

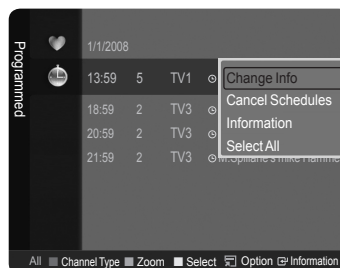
You can view, modify or delete a reservation.

1. Press the **MENU** button.
Press the **▲** or **▼** button to select "Channel", then press the **ENTER**  button. Press the **▲** or **▼** button to select "Channel List", then press the **ENTER**  button.
2. Press the **◀** button to select "Added Channels".
3. Press the **▲** or **▼** button to select "Programmed".
➤ Shows all current reserved programs.
Press the **ENTER**  button.





Modifying a viewing reservation

4. To select a reservation item to be modified, press the **▲** or **▼** button and then press the **TOOLS** button.
5. Press the **ENTER**  button to select "Change Info".
6. Press the **▲/▼/◀/▶** buttons to change a reservation setting and then press the **ENTER**  button. The reservation modification is applied.




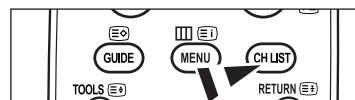
Canceling a reservation

4. To select a reservation item to be canceled, press the **▲** or **▼** button, and then press the **TOOLS** button.
5. Press the **▲** or **▼** button to select "Cancel Schedules", then press the **ENTER**  button.
6. Press the **◀** or **▶** button to select "OK", then press the **ENTER**  button. The viewing reservation has been canceled.
Press the **EXIT** button to exit.

Programmed Option

- **Change Info:** Select to change a viewing reservation.
- **Cancel Schedules:** Select to cancel a viewing reservation.
- **Information:** Select to view a viewing reservation.
- **Select All:** Select all reserved programs.

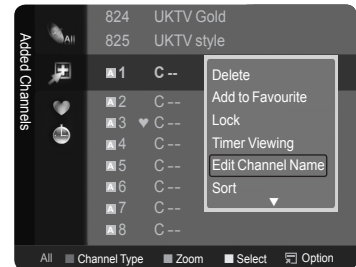
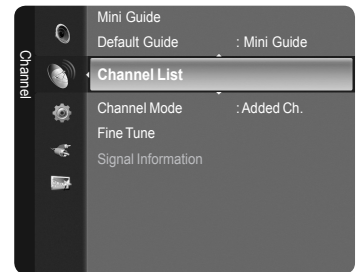
-  Press the **CH LIST** button on the remote control to bring up the channel lists.



Edit Channel Name-Analogue

Channels can be labeled so that their call letters appear whenever the channel is selected.

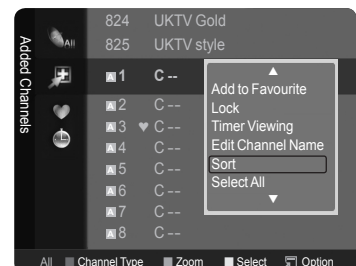
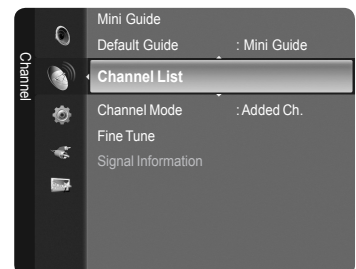
1. Press the **MENU** button.
Press the **▲** or **▼** button to select "Channel", then press the **ENTER** button.
Press the **▲** or **▼** button to select "Channel List", then press the **ENTER** button.
2. Press the **▲** or **▼** button to select the channel to be assigned a new name, then press the **TOOLS** button.
3. Press the **▲** or **▼** button to select "Edit Channel Name", then press the **ENTER** button.
4. Press the **▲/▼/◀/▶** button to select a letter, then press the **ENTER** button.
 - **Numeric buttons:** You can enter numbers.
 - **Red button:** You can switch between English and Characters.
 - **Green button:** You can delete an already entered character.
 - **Yellow button:** You can enter a blank space.
 - **Blue button:** You can finish renaming a channel.
5. When you have finished, press the blue button to assign the new name.
Press the **EXIT** button to exit.
 - The names of digital broadcasting channels are automatically assigned and cannot be labelled.






Sorting the Stored Channels-Analogue

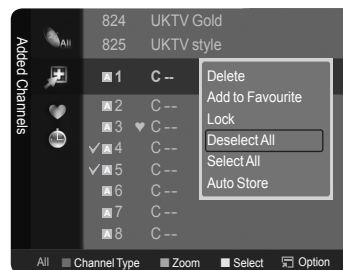
This operation allows you to change the programme numbers of the stored channels. This operation may be necessary after using the auto store.

1. Press the **MENU** button.
Press the **▲** or **▼** button to select "Channel", then press the **ENTER** button.
Press the **▲** or **▼** button to select "Channel List", then press the **ENTER** button.
2. Press the **▲** or **▼** button to select a channel, then press the **TOOLS** button.
3. Press the **▲** or **▼** button to select "Sort", then press the **ENTER** button.
4. Press the **▲** or **▼** button to move to the position in which you would like to change and then press the **ENTER** button.
5. Repeat steps 2 to 4 for another channel to be sorted.
6. Press the **EXIT** button to exit.






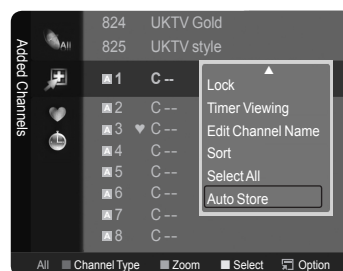
Selecting and Deselecting All Channels

1. Press the **MENU** button.
Press the **▲** or **▼** button to select "Channel", then press the **ENTER**  button.
Press the **▲** or **▼** button to select "Channel List", then press the **ENTER**  button.
2. Press the **▲** or **▼** button to select the channel, then press the **TOOLS** button.
3. Press the **▲** or **▼** button to select "Select All" or "Deselect All", then press the **ENTER**  button.
 - You can only select "Deselect All" when there is a selected channel.
 - You can select(or Deselect) all channel in the channel list.
 - The **✓** mark appears to the left of the selected channels.






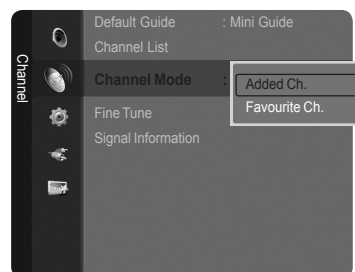
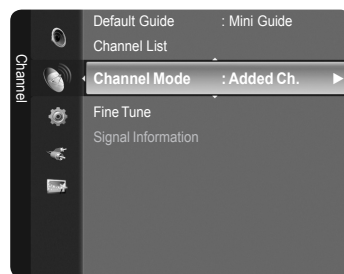
Storing Channels in Memory (Auto Store)

1. Press the **MENU** button.
Press the **▲** or **▼** button to select "Channel", then press the **ENTER**  button.
Press the **▲** or **▼** button to select "Channel List", then press the **ENTER**  button.
2. Press the **▲** or **▼** button to select the channel to be assigned a new name, then press the **TOOLS** button.
3. Press the **▲** or **▼** button to select "Auto Store", then press the **ENTER**  button.
 - For further details on setting up options, refer to page 11~12.
 - If a channel is locked using the "Child Lock" function, the PIN input window appears (refer to page 39).







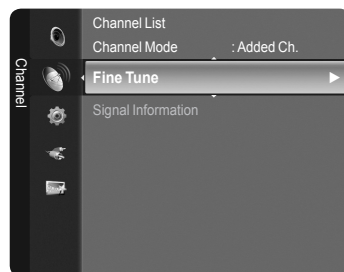
Setting the Channel Mode

1. Press the **MENU** button to display the menu. Press the **▲** or **▼** button to select "Channel", then press the **ENTER**  button.
2. Press the **▲** or **▼** button to select "Channel Mode", then press the **ENTER**  button.
3. Press the **▲** or **▼** button to select "Added Ch." or "Favourite Ch.". Press the **ENTER**  button.
4. Press the **EXIT** button to exit.





Fine Tuning Analogue Channels

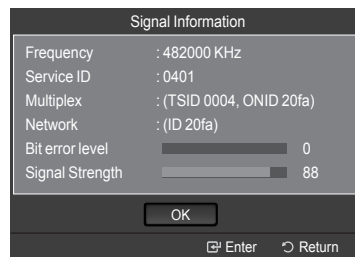
1. Use the number buttons to directly select the channel that you want to fine tune.
2. Press the **MENU** button to display the menu. Press the **▲** or **▼** button to select "Channel", then press the **ENTER**  button.
3. Press the **▲** or **▼** button to select "Fine Tune", then press the **ENTER**  button.
4. Press the **◀** or **▶** button to adjust the fine tuning. Press the **ENTER**  button.
5. Press the **EXIT** button to exit.
 - Fine tuned channels that have been saved are marked with an asterisk "*" on the right-hand side of the channel number in the channel banner.
 - To reset the fine-tuning, select "Reset" by pressing the **▲** or **▼** button and then press the **ENTER**  button.
 - Only Analogue TV channels can be fine tuned.



Checking the Digital-Signal Information

You can get information about the signal status.

1. Press the **MENU** button to display the menu.
Press the **▲** or **▼** button to select "Channel", then press the **ENTER**  button.
2. Press the **▲** or **▼** button to select "Signal Information", then press the **ENTER**  button.
3. Press the **EXIT** button to exit.
 - If the signal status is poor, the "No signal." message is displayed.
 - While viewing a Digital channel, this function can be selected.



Picture Control

Changing the Picture Standard

You can select the type of picture which best corresponds to your viewing requirements.

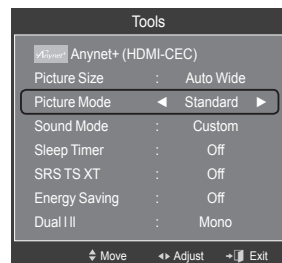
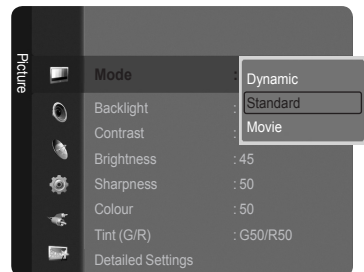
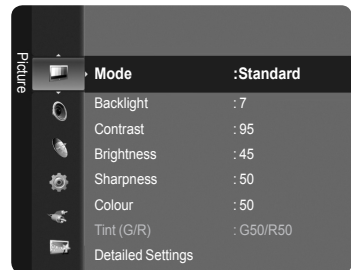
1. Press the **MENU** button to display the menu.
Press the **ENTER** button to select "Picture".
2. Press the **ENTER** button to select "Mode". Press the **▲** or **▼** button to select "Dynamic", "Standard" or "Movie". Press the **ENTER** button.

- **Dynamic:** Selects the picture for high-definition in a bright room.
- **Standard:** Selects the picture for the optimum display in a normal environment.
- **Movie:** Selects the picture for viewing movies in a dark room.

3. Press the **EXIT** button to exit.

Easy Setting

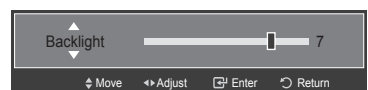
1. Press the **TOOLS** button on the remote control.
2. Press the **▲** or **▼** button to select "Picture Mode".
3. Press the **◀** or **▶** button to select the required option.
4. Press the **EXIT** or **TOOLS** button to exit.



Customizing the Picture Settings

Your television has several setting options that allow you to control the picture quality.

1. To select the desired picture mode, follow the "Changing the Picture Standard" instructions numbers 1 and 2.
2. Press the **▲** or **▼** button to select "Backlight", "Contrast", "Brightness", "Sharpness", "Colour" or "Tint(G/R)", then press the **ENTER** button.
3. Press the **◀** or **▶** button to decrease or increase the value of a particular item. Press the **ENTER** button. Press the **EXIT** button to exit.
 - When you make changes to "Backlight", "Contrast", "Brightness", "Sharpness", "Colour" or "Tint(G/R)", the OSD will be adjusted accordingly.
 - In TV, Ext., AV, S-Video modes of the PAL system, you cannot use the "Tint" Function.
 - In PC mode, you can only make changes to "Backlight", "Contrast" and "Brightness".
 - Settings can be adjusted and stored for each external device you have connected to an input of the TV.
 - The energy consumed during use can be significantly reduced if the level of brightness of the picture is reduced, and that this will reduce the overall running cost.







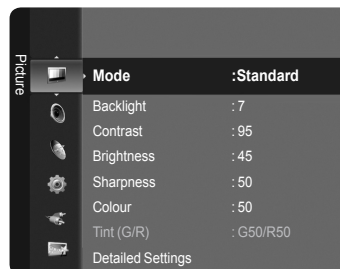
- **Backlight:** Adjusts the brightness of LCD back light.
- **Contrast:** Adjusts the contrast level of the picture.
- **Brightness:** Adjusts the brightness level of the picture.
- **Sharpness:** Adjusts the edge definition of the picture.
- **Colour:** Adjusts colour saturation of the picture.
- **Tint(G/R):** Adjusts the colour tint of the picture.

Adjusting the Detailed Settings

Samsung's new TVs allow you to make even more precise picture settings than previous models. See below to adjust detailed picture settings.

Activating Detailed Settings

1. Press the **MENU** button to display the menu.
Press the **ENTER**  button to select "Picture".
2. Press the **ENTER**  button to select "Mode".
Press the **▲** or **▼** button to select "Standard" or "Movie", then press the **ENTER**  button.
 - "Detailed Settings" is available in "Standard" or "Movie" mode.
3. Press the **▲** or **▼** button to select "Detailed Settings", then press the **ENTER**  button.
 - In PC mode, you can only make changes to "Dynamic Contrast", "Gamma" and "White Balance" from among the "Detailed Settings" items.



◆ **Black adjust: Off/Low/Medium/High**

You can select the black level on the screen to adjust the screen depth.

◆ **Dynamic Contrast: Off/Low/Medium/High**

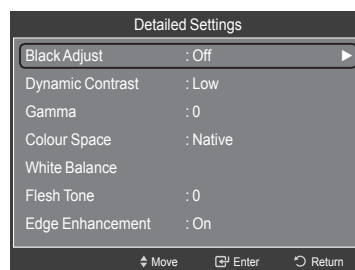
You can adjust the screen contrast so that the optimal contrast is provided.

◆ **Gamma: -3 ~ +3**

You can adjust the Primary Colour (Red, Green, Blue) Intensity.

◆ **Colour Space: Auto/Native/Custom**

Colour Space is a colour matrix composed of red, green and blue colours. Select your favourite Colour Space to experience the most natural colour.




- **Auto:** Auto Colour Space automatically adjusts to the most natural colour tone based on programme sources.
- **Native:** Native Colour Space offers deep and rich colour tone.
- **Custom:** Adjusts the colour range to suit your preference.


➤ **Customizing the Colour Space**

Colour: Red/Green/Blue/Yellow/Cyan/Magenta

Adjusts the Colour range to suit your preference. "Colour" is available when "Colour Space" is set to "Custom". Press the **▲** or **▼** button to select "Red", "Green", "Blue", "Yellow", "Cyan" or "Magenta". Press the **ENTER**  button.

Red/Green/Blue: In "Colour", you can adjust the RGB values for the selected colour.

Press the **▲** or **▼** button to select "Red", "Green" or "Blue" to change it. Press the **ENTER**  button.


Press the **◀** or **▶** button to decrease or increase the value of a particular item. Press the **ENTER**  button.

Reset: Resets the colour space to the default values.

◆ **White Balance: R-Offset/G-Offset/B-Offset/R-Gain/G-Gain/B-Gain/Reset**

You can adjust the colour temperature for more natural picture colours.

R-Offset/G-Offset/B-Offset/R-Gain/G-Gain/B-Gain: Changing the adjustment value will refresh the adjusted screen.

Select the required option by pressing the **▲** or **▼** button, then press the **ENTER**  button.

Press the **◀** or **▶** button until you reach the optimal setting.

Reset: The previously adjusted white balance will be reset to the factory defaults.

◆ **Flesh Tone: -15 ~ +15**

You can emphasize the pink 'flesh tone' in the picture.

Press the **◀** or **▶** button until you reach the optimal setting.

➤ Changing the adjustment value will refresh the adjusted screen.

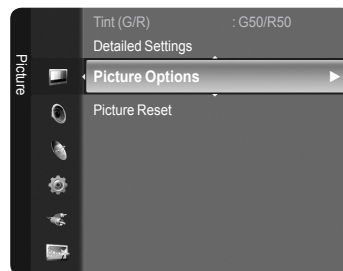
◆ **Edge Enhancement: Off/On**

You can emphasize object boundaries in the picture.

Configuring Picture Options

Activating Picture Options

1. Press the **MENU** button to display the menu.
Press the **ENTER** button to select "Picture".
2. Press the **▲** or **▼** button to select "Picture Options", then press the **ENTER** button.
 - Press the **▲** or **▼** button to select a particular item. Press the **ENTER** button.
 - When you are satisfied with your setting, press the **ENTER** button.
 - In PC mode, you can only make changes to the "Colour Tone" and "Size" from among the items in "Picture Options".



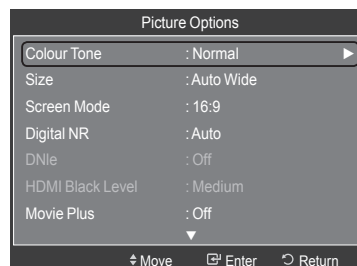
◆ Colour Tone: Cool2/Cool1/Normal/Warm1/Warm2

You can select the most comfortable colour tone to your eyes.

- The adjusted values are stored according to the selected "Picture" mode.
- "Warm1" or "Warm2" is only activated when the picture mode is "Movie".


◆ Size: Auto Wide/16:9/Wide Zoom/Zoom/4:3/Just Scan

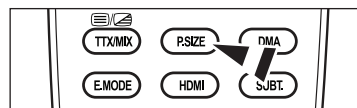
You can select the picture size which best corresponds to your viewing requirements.



- **Auto Wide:** Automatically adjusts the picture size to the "16:9" aspect ratio.
- **16:9:** Adjusts the picture size to 16:9 appropriate for DVDs or wide broadcasting.
- **Wide Zoom:** Magnify the size of the picture more than 4:3.
- **Zoom:** Magnifies the 16:9 wide picture (in the vertical direction) to fit the screen size.
- **4:3:** This is the default setting for a video movie or normal broadcasting.
- **Just Scan:** Use the function to see the full image without any cutoff when HDMI (720p/1080i) or Component (1080i) signals are input.

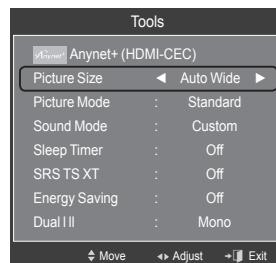
- "Auto Wide" function is available only in "TV", "Ext.1", "Ext.2", "AV", and "S-Video" mode.
- In PC Mode, only "16:9" and "4:3" mode can be adjusted.
- Settings can be adjusted and stored for each external device you have connected to an input of the TV.
- Temporary image retention may occur when viewing a static image on the set for more than two hours.
- "Wide Zoom": Press the **►** button to Select "Position", then press the **ENTER** button. Press the **▲** or **▼** button to move the screen up/down. Then press the **ENTER** button.
- "Zoom": Press the **►** button to Select "Position", then press the **ENTER** button. Press the **▲** or **▼** button to move the picture up and down. Then press the **ENTER** button. Press the **►** button to Select "Size", then press the **ENTER** button. Press the **▲** or **▼** button to magnify or reduce the picture size in the vertical direction. Then press the **ENTER** button.
- **After selecting "Just Scan" in HDMI (1080i) or Component (1080i) mode:**
Select "Position" by pressing the **◀** or **▶** button. Use the **▲**, **▼**, **◀** or **▶** button to move the picture.
Reset: Press the **◀** or **▶** button to select "Reset", then press the **ENTER** button. You can initialize the setting.
- If you use the "Just Scan" function with HDMI 720p input, 1 line will be cut at the top, bottom, left and right as in the overscan function.

-  You can select these options by simply pressing the **P.SIZE** button on the remote control.



Easy Setting

1. Press the **TOOLS** button on the remote control.
2. Press the **▲** or **▼** button to select "Picture Size".
3. Press the **◀** or **▶** button to select the required option.
4. Press the **EXIT** or **TOOLS** button to exit.



◆ **Screen Mode: 16:9/Wide Zoom/Zoom/4:3**

When setting the picture size to "Auto Wide" in a 16:9 wide TV, you can determine the picture size you want to see the 4:3 WSS (Wide Screen Service) image or nothing. Each individual European country requires different picture size so this function is intended for users to select it.

- **16:9:** Sets the picture to 16:9 wide mode.
- **Wide Zoom:** Magnify the size of the picture more than 4:3.
- **Zoom:** Magnify the size of the picture vertically on screen.
- **4:3:** Sets the picture to 4:3 normal mode.

- This function is available in "Auto Wide" mode.
- This function is not available in "PC", "Component" or "HDMI" mode.

◆ **Digital NR: Off/Low/Medium/High/Auto**

If the broadcast signal received by your TV is weak, you can activate the Digital Noise Reduction feature to help reduce any static and ghosting that may appear on the screen.

- When the signal is weak, select one of the other options until the best picture is displayed.

◆ **DNle: Off/Demo/On**

This TV includes the DNle function so as to provide a high visual quality. If you set DNle to on, you can view the screen with the DNle feature activated. If you set the DNle to Demo, you can view the applied DNle and normal pictures on the screen, for demonstration purposes. Using this function, you can view the difference in the visual quality.

➤ **DNle™ (Digital Natural Image engine) DNle™**

This feature brings you more detailed image with 3D noise reduction, detail enhancement, contrast enhancement and white enhancement. New image compensation Algorithm gives brighter, clearer, more detailed image to you. DNle™ technology will fit every signal into your eyes.

- This function is not available in "Movie" and "Standard" mode.

◆ **HDMI Black Level: Normal/Low**

You can directly select the black level on the screen to adjust the screen depth.

- This function is active only when the external input connects to HDMI (RGB signals).



◆ **Blue Only Mode: Off/On**

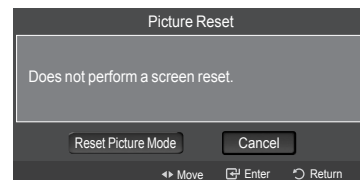
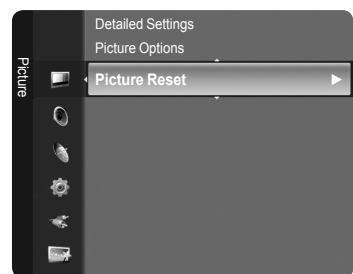
This function is for AV device measurement experts. This function displays the blue signal only by removing the red and green signals from the video signal so as to provide a Blue Filter effect that is used to adjust the Colour and Tint of video equipment such as DVD players, Home Theaters, etc.

Using this function, you can adjust the Colour and Tint to preferred values appropriate to the signal level of each video device using the Red/Green/Blue/ Cyan/Magenta/Yellow Colour Bar Patterns, without using an additional Blue Filter.

- "Blue Only Mode" is available when the picture mode is set to "Movie" or "Standard".

Resetting the Picture Settings to the Factory Defaults




1. To select the desired picture mode, follow the "Changing the Picture Standard" instructions numbers 1 and 2. (see page 27)
2. Press the ▲ or ▼ button to select "Picture Reset", then press the **ENTER**  button.
3. Press the ▲ or ▼ button to select "Reset Picture Mode" or "Cancel", then press the **ENTER**  button.
Press the **EXIT** button to exit.
➤ Each mode can be reset.



Sound Control

Changing the Sound Standard

You can select the sound mode to best suit the programming you're watching.

1. Press the **MENU** button to display the menu.
Press the **▲** or **▼** button to select "Sound", then press the **ENTER**  button.
2. Select the required option by pressing the **▲** or **▼** button, then press the **ENTER**  button.
3. When you are satisfied with your setting, press the **ENTER**  button.
4. Press the **EXIT** button to exit.

◆ Mode: Standard/Music/Movie/Speech/Custom

You can select the type of special sound effect to be used when watching a given broadcast.

Easy Setting

1. Press the **TOOLS** button on the remote control.
2. Press the **▲** or **▼** button to select "Sound Mode".
3. Press the **◀** or **▶** button to select the required option.
4. Press the **EXIT** or **TOOLS** button to exit.

◆ Equalizer: Mode/Balance/100Hz/300Hz/1kHz/3kHz/10kHz/Reset

The sound settings can be adjusted to suit your personal preferences.

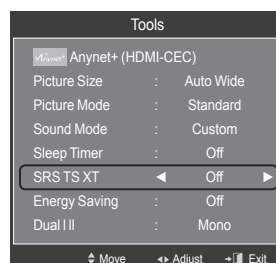
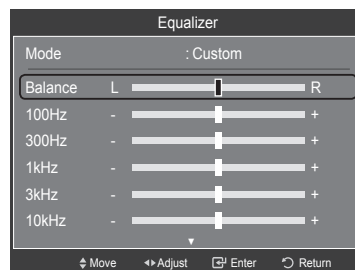
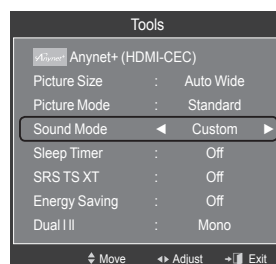
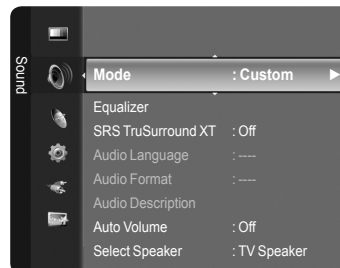
- The adjusted values are stored according to the selected "Sound" mode.
- **Reset**: Resets the equalizer settings to the default values.


◆ SRS TruSurround XT: Off/On

TruSurround XT is a patented SRS technology that solves the problem of playing 5.1 multichannel content over two speakers. TruSurround delivers a compelling, virtual surround sound experience through any two-speaker playback system, including internal television speakers. It is fully compatible with all multichannel formats.

Easy Setting

1. Press the **TOOLS** button on the remote control.
2. Press the **▲** or **▼** button to select "SRS TS XT".
3. Press the **◀** or **▶** button to select the "Off" or "On".
4. Press the **EXIT** or **TOOLS** button to exit.



TruSurround XT, SRS and  Symbol are trademarks of SRS Labs, Inc.
TruSurround XT technology is incorporated under license from SRS Labs, Inc.

◆ Audio Language

You can change the default value for audio languages. Displays the language information for the incoming stream.

- While viewing a Digital channel, this function can be selected.
- You can only select the language among the actual languages being broadcast.

◆ **Audio Format: MPEG/Dolby Digital**

When sound is emitted from both the main speaker and the audio receiver, a around echo may occur due to the decoding speed difference between the main speaker and the audio receiver. In this case, use the TV Speaker function.

- While viewing a Digital channel, this function can be selected.
- You can only select the language among the actual languages being broadcast.



Manufactured under license from Dolby Laboratories. Dolby and the double-D symbol are trademarks of Dolby Laboratories.

◆ **Audio Description**

This is an auxiliary audio function that provides an additional audio track for visually challenged persons. This function handles the Audio Stream for the AD (Audio Description), when it is sent along with the Main audio from the broadcaster. Users can turn the Audio Description On or Off and control the volume.

- Audio Description : On/Off
- Volume : 0~100
- "Volume" is active when "Audio Description" is set to "On".
- While viewing a Digital channel, this function can be selected.

◆ **Auto Volume: Off/On**

Each broadcasting station has its own signal conditions, and so it is not easy to adjust the volume every time the channel is changed. This feature lets you automatically adjust the volume of the desired channel by lowering the sound output when the modulation signal is high or by raising the sound output when the modulation signal is low.

◆ **Select Speaker: External Speaker/TV Speaker**

If you want to hear the sound through separate speakers, cancel the internal amplifier.

- The +, - and **MUTE** buttons do not operate when the "Select Speaker" is set to "External Speaker".
- If you select "External Speaker" in the "Select Speaker" menu, the sound settings will be limited.


	TV's Internal Speakers			Audio Out (Optical, L/R Out) to Sound System		
	RF	AV, S-Video	Component, PC, HDMI	RF	AV, S-Video	Component, PC, HDMI
TV Speaker	Speaker Output	Speaker Output	Speaker Output	Sound Output	Sound Output	Sound Output
External Speaker	Mute	Mute	Mute	Sound Output	Sound Output	Sound Output
Video No Signal	Mute	Mute	Mute	Mute	Mute	Mute

◆ **Sound Reset: Reset All/Reset Sound Mode/Cancel**

You can restore the Sound settings to the factory defaults.

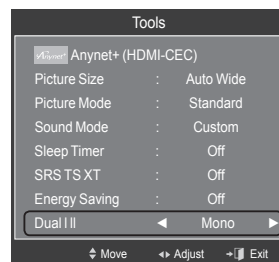
Selecting the Sound Mode

You can set the sound mode in the "Tools" menu. When you set to "Dual I II", the current sound mode is displayed on the screen.

1. Press the **TOOLS** button on the remote control.
2. Press the **▲** or **▼** button to select "Dual I II".
3. Press the **◀** or **▶** button to select required option.
4. Press the **ENTER**  button.

	Audio Type	Dual 1/2	Default
A2 Stereo	Mono	MONO	Automatic change
	Stereo	STEREO ↔ MONO	
	Dual	DUAL 1 ↔ DUAL 2	DUAL 1
NICAM Stereo	Mono	MONO	Automatic change
	Stereo	MONO ↔ STEREO	
	Dual	<div> <div>→ MONO ↔ DUAL 1</div> <div>← DUAL 2 ←</div> </div>	DUAL 1

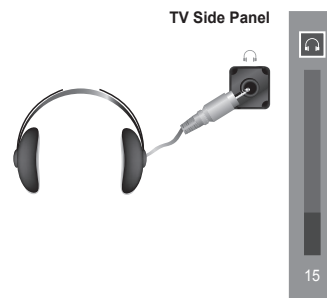
- If the stereo signal is weak and an automatic switching occurs, then switch to the Mono.
- This function is only activated in stereo sound signal. It is deactivated in mono sound signal.
- This function is only available in Analogue TV mode.



Connecting Headphones (Sold separately)

You can connect a set of headphones to your set if you wish to watch a TV program without disturbing other people in the room.

- Using the sound function is restricted when connecting headphones to the TV.
- Prolonged use of headphones at a high volume may damage your hearing.
- You will not hear sound from the speakers when you connect headphones to the TV.
- The headphone volume and TV volume are adjusted separately.





Time Setting

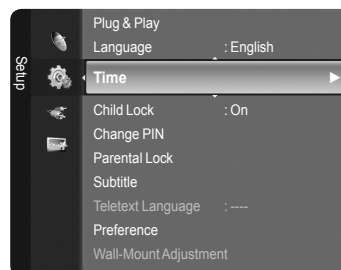
Setting the Clock

Setting the clock is necessary in order to use the various timer features of the TV. Also, you can check the time while watching the TV. (Just press the **INFO** button.)

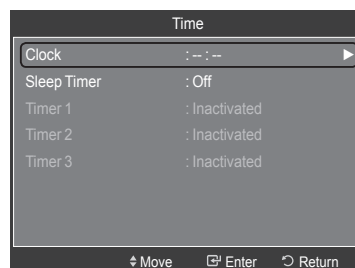
- If you disconnect the power cord, you have to set the clock again.



Option 1: Setting the Clock Manually

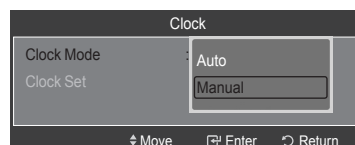
1. Press the **MENU** button to display the menu.
Press the **▲** or **▼** button to select "Setup", then press the **ENTER**  button.
Press the **▲** or **▼** button to select "Time", then press the **ENTER**  button.



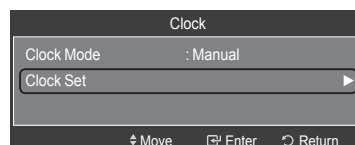
2. Press the **ENTER**  button to select "Clock".




3. Press the **ENTER**  button to select "Clock Mode".
Press the **▲** or **▼** button to select "Manual", then press the **ENTER**  button.



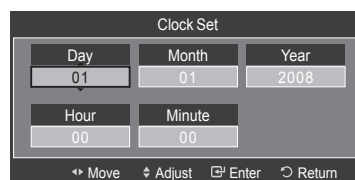
4. Press the **▲** or **▼** button to select "Clock Set", then press the **ENTER**  button.



5. Press the **◀** or **▶** button to move to "Day", "Month", "Year", "Hour" or "Minute". Set the date and time you want by pressing the **▲** or **▼** button, then press the **ENTER**  button.

Press the **EXIT** button to exit.

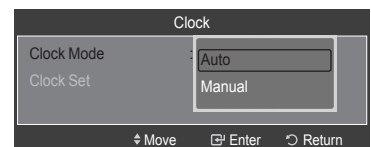
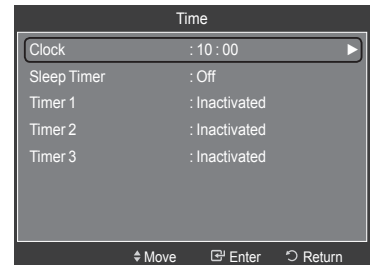
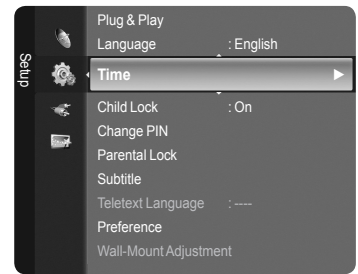
- The current time will appear every time you press the **INFO** button.
- You can set the month, day, year, hour and minute directly by pressing the number buttons on the remote control.



Option 2: Setting the Clock Automatically

The Clock can be set automatically if you are receiving a digital signal.

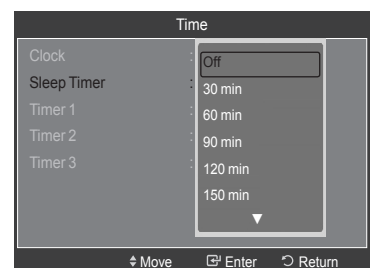
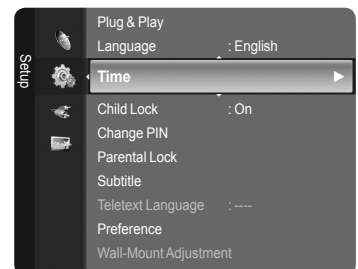
1. Press the **MENU** button to display the menu.
Press the **▲** or **▼** button to select "Setup", then press the **ENTER** button.
Press the **▲** or **▼** button to select "Time", then press the **ENTER** button.
2. Press the **ENTER** button to select "Clock".
3. Press the **ENTER** button to select "Clock Mode".
Press the **▲** or **▼** button to select "Auto", then press the **ENTER** button.
4. Press the **EXIT** button to exit.



Setting the Sleep Timer

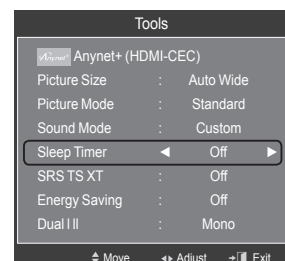
You can select a time period of between 30 and 180 minutes after which the television automatically switches to standby mode.

1. Press the **MENU** button to display the menu.
Press the **▲** or **▼** button to select "Setup", then press the **ENTER** button.
2. Press the **▲** or **▼** button to select "Time", then press the **ENTER** button.
3. Press the **▲** or **▼** button to select "Sleep Timer", then press the **ENTER** button.
4. Press the **▲** or **▼** button repeatedly until the desired time appears (Off, 30, 60, 90, 120, 150, 180). Press the **ENTER** button.
5. Press the **EXIT** button to exit.
 - The TV automatically switches to standby mode when the timer reaches 0.





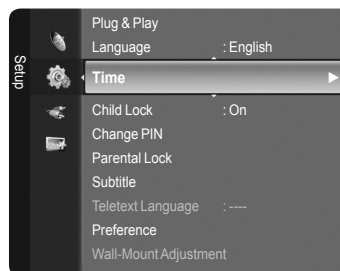
Easy Setting


1. Press the **TOOLS** button on the remote control.
2. Press the **▲** or **▼** button to select "Sleep Timer".
3. Press the **◀** or **▶** button to select the minute.
4. Press the **EXIT** or **TOOLS** button to exit.

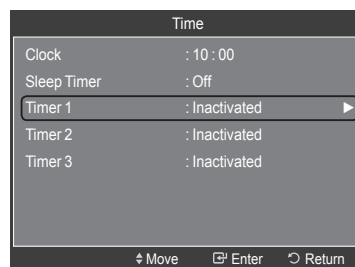


Switching the Television On and Off Automatically


1. Press the **MENU** button to display the menu.
Press the **▲** or **▼** button to select "Setup", then press the **ENTER**  button.
2. Press the **▲** or **▼** button to select "Time", then press the **ENTER**  button.



3. Press the **▲** or **▼** button to select "Timer 1", "Timer 2", "Timer 3", then press the **ENTER**  button. Three different On/Off Timer Settings can be made.
➤ You must set the clock first.



4. Press the **◀** or **▶** button to select the desired item below.
Press the **▲** or **▼** button to adjust to the setting satisfied.

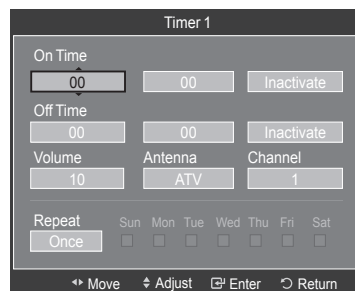
- **On Time:** Set the Hour, Minute, and Activate/Inactivate.
(To activate timer with the setting you've chosen, set to "Activate".)
- **Off Time:** Set the Hour, Minute, and Activate/Inactivate.
(To activate timer with the setting you've chosen, set to "Activate".)
- **Volume:** Set the required volume level.
- **Antenna:** Select "ATV" or "DTV".
- **Channel:** Select the desired channel.
- **Repeat:** Select "Once", "Everyday", "Mon~Fri", "Mon~Sat", "Sat~Sun", or "Manual".
➤ When "Manual" is selected, press the **▶** button to select the desired day of the week. Press the **ENTER**  button over the desired day and the **✓** mark will appear.

Press the **EXIT** button to exit.

- You can set the hour, minute and channel by pressing the number buttons on the remote control.




➤ Auto Power Off

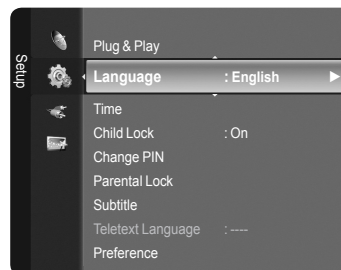
When you set the timer On, the television will eventually turn off, if no controls are operated for 3 hours after the TV was turned on by the timer. This function is only available in timer On mode and prevents overheating, which may occur if a TV is on for too long time.



Function Description





Selecting a Menu Language

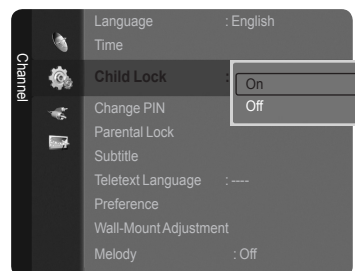
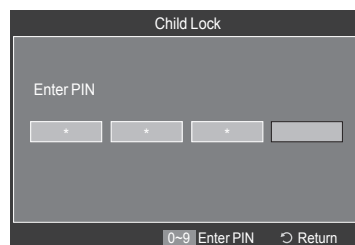
1. Press the **MENU** button to display the menu.
Press the **▲** or **▼** button to select "Setup", then press the **ENTER**  button.
Press the **▲** or **▼** button to select "Language", then press the **ENTER**  button.
2. Select a particular language by pressing the **▲** or **▼** button repeatedly.
Press the **ENTER**  button.
3. Press the **EXIT** button to exit.




Activating the Child Lock

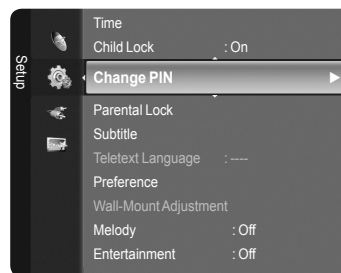
This feature allows you to prevent unauthorized users, such as children, from watching unsuitable programmes by muting out video and audio.


1. Press the **MENU** button to display the menu.
Press the **▲** or **▼** button to select "Setup", then press the **ENTER**  button.
Press the **▲** or **▼** button to select "Child Lock", then press the **ENTER**  button.
2. Press the **▲** or **▼** button to select "Child Lock". Press the **ENTER**  button.
3. Enter your 4 digit PIN number.
 - The default PIN number of a new TV set is "0-0-0-0".
 - If you want to change PIN number, refer to page 39.
4. Press the **▲** or **▼** button to select "On". Press the **ENTER**  button.
5. Press the **EXIT** button to exit.
 - You can lock some channels in Channel List. (refer to pages 19~20)
 - "Child Lock" is available only in TV mode.
 - If a channel is locked using the "Child Lock" function, the PIN input window appears when "Auto Store" or "Plug & Play" is selected.

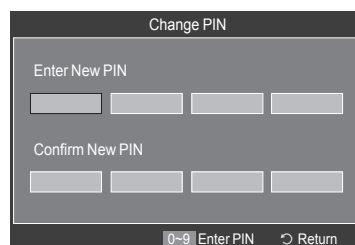
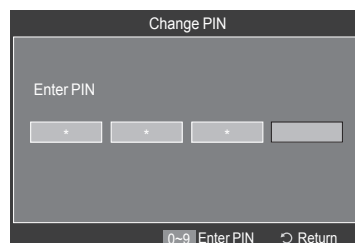


Setting Up Your Personal ID Number (PIN)

1. Press the **MENU** button to display the menu.
2. Press the **▲** or **▼** button to select "Setup", then press the **ENTER**  button.




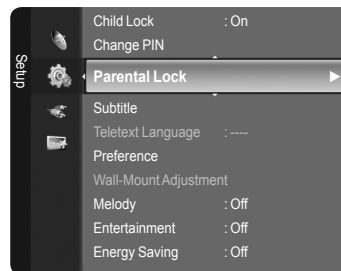
3. Press the **▲** or **▼** button to select "Change PIN", then press the **ENTER**  button. The "Enter PIN" is displayed.
4. Enter your current 4-digit PIN code by using the numeric buttons (0~9).
➤ The "Enter New PIN" is displayed.
5. Enter your new PIN code by using the numeric buttons (0~9)
➤ The "Confirm New PIN" is displayed.
6. Re-enter your new PIN code to confirm by using the numeric buttons (0~9).
➤ The "PIN is changed successfully" message is displayed.
7. Press the **EXIT** button to exit.
➤ If you forget the PIN code, press the remote control buttons in the following sequence, which resets the PIN to 0-0-0-0: **POWER** (Off), **MUTE**, **8**, **2**, **4**, **POWER** (On).




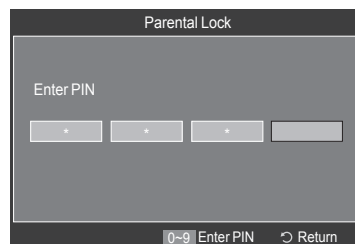
Setting up the Parental Lock

This feature allows you to prevent unauthorized users, such as children, from watching unsuitable programmes by a 4-digit PIN (Personal Identification Number) code that is defined by the user.

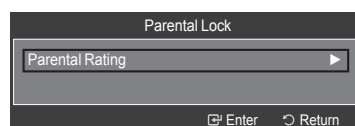
1. Press the **MENU** button to display the menu.
2. Press the **▲** or **▼** button to select "Setup", then press the **ENTER**  button.




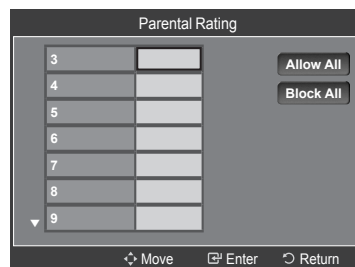
3. Press the **▲** or **▼** button to select "Parental Lock", then press the **ENTER**  button.
 - The "Enter PIN" is displayed.
4. Enter your current 4-digit PIN code by using the numeric buttons (0~9).
 - The default PIN code for a new TV set is 0000. If you want to change PIN number, refer to page 39.



5. Press the **ENTER**  button.



6. Press the **▲** or **▼** button to select the age rating you want to lock out. Press the **ENTER**  button.
 - The "Parental Rating" item differs depending on the country.
 - The "🔒" symbol will be displayed.
 - **Allow All**: Press to unlock all TV ratings.
 - **Block All**: Press to lock all TV ratings.

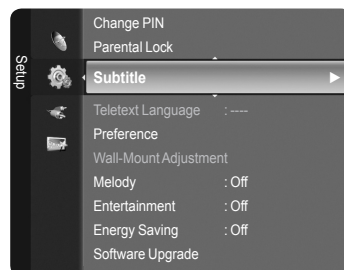


7. Press the **EXIT** button to exit.

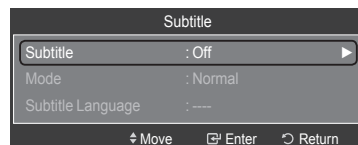
Setting the Subtitle

You can activate and deactivate the subtitles. Use this menu to set the Subtitle Mode. "Normal" under the menu is the basic subtitle and "Hard of hearing" is the subtitle for a hearing-impaired person.

1. Press the **MENU** button to display the menu.
2. Press the **▲** or **▼** button to select "Setup", then press the **ENTER** button.
3. Press the **▲** or **▼** button to select "Subtitle", then press the **ENTER** button.




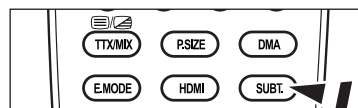
4. Press the **ENTER** button again, then press the **▲** or **▼** button to select "On". Press the **ENTER** button.
5. Press the **▲** or **▼** button to select "Mode", then press the **ENTER** button.
6. Press the **▲** or **▼** button to select "Normal" or "Hard of hearing". Press the **ENTER** button.



➤ If the programme you are watching does not support the "Hard of hearing" function, "Normal" automatically activates even though "Hard of hearing" mode is selected.

7. Press the **▲** or **▼** button to select "Subtitle Language", then press the **ENTER** button.
8. Select the appropriate language by pressing the **▲** or **▼** button. Press the **ENTER** button to confirm your choice.
 - English is the default in cases where the selected language is unavailable in the broadcast.
9. Press the **EXIT** button to exit.

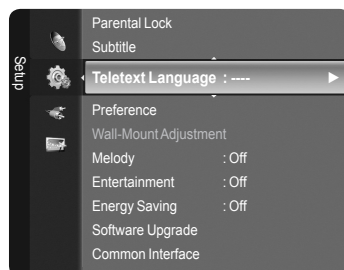
 You can select these options simply by pressing the **SUBT.** button on the remote control.



Selecting a Teletext Language

You can set the Teletext language by selecting the language type.





1. Press the **MENU** button to display the menu. Press the **▲** or **▼** button to select "Setup", then press the **ENTER** button.
2. Press the **▲** or **▼** button to select "Teletext Language", then press the **ENTER** button.
3. Select a particular language by pressing the **▲** or **▼** button repeatedly. Press the **ENTER** button.
 - English is the default in cases where the selected language is unavailable in the broadcast.
4. Press the **EXIT** button to exit.

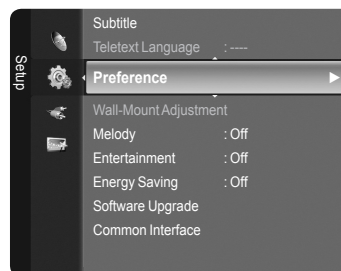


Selecting a Preference Language

This menu consists of 6 sub-menus: Primary Audio Language, Secondary Audio Language, Primary Subtitle Language, Secondary Subtitle Language, Primary Teletext Language, Secondary Teletext Language.




Using this feature, users can select one of the languages. The language selected here is the default when the user selects a channel.

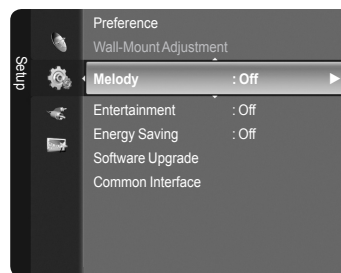
1. Press the **MENU** button to display the menu.
Press the **▲** or **▼** button to select "Setup", then press the **ENTER**  button.
2. Press the **▲** or **▼** button to select "Preference", then press the **ENTER**  button.
3. Press the **▲** or **▼** button to select required menu (Primary Audio Language, Secondary Audio Language, Primary Subtitle Language, Secondary Subtitle Language, Primary Teletext Language, Secondary Teletext Language).
Press the **ENTER**  button.
4. Select the appropriate language by pressing the **▲** or **▼** button. Press the **ENTER**  button to confirm your choice.
5. Press the **EXIT** button to exit.



- If you change the language setting, the Subtitle Language, Audio Language, and the Teletext Language of the Language menu are automatically changed to the selected language.
- The Subtitle Language, Audio Language, and the Teletext Language of the Language menu show a list of languages supported by the current channel and the selection is highlighted. If you change this language setting, the new selection is only valid for the current channel. The changed setting does not change the setting of the Primary Subtitle Language, Primary Audio Language, or the Primary Teletext Language of the Preference menu.

Melody/Entertainment/Energy Saving

1. Press the **MENU** button to display the menu.
Press the **▲** or **▼** button to select "Setup", then press the **ENTER**  button.
2. Select the required option by pressing the **▲** or **▼** button, then press the **ENTER**  button.
3. When you are satisfied with your setting, press the **ENTER**  button.
4. Press the **EXIT** button to exit.



◆ Melody: Off/Low/Medium/High

The TV power on/off melody sound can be adjusted.

➤ The Melody does not play


- When no sound is output from the TV because the **MUTE** button has been pressed.
- When no sound is output from the TV because the **- (Volume)** button has been pressed.
- When the TV is turned off by Sleep Timer function.

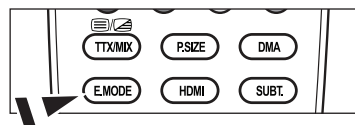
◆ Entertainment: Off/Sports/Cinema/Game

The "Entertainment" mode enables you to select the optimal display and sound for sports, cinema and games.

- **Off**: Switches the "Entertainment" function off.
- **Sports**: Provides the optimal picture and sound quality for sports.
- **Cinema**: Provides the optimal picture and sound quality for movie watching. You can experience a richer picture and enhanced sound.
- **Game**: Provides the optimal picture and sound quality for games. This mode accelerates the playing speed when using an external game console connected to the TV.

- If you set any of the three "Entertainment" modes to On, the settings will be locked and can not be adjusted. If you want to make Picture and Sound mode adjustments, the "Entertainment" mode must be turned off.
- If you set any of the three "Entertainment" modes to On, "SRS TruSurround XT" function is not available.
- The "Entertainment" settings are saved for each input source.
- This function is not available in PC mode.

-  You can press the **E.MODE** button on the remote control repeatedly to change the "Entertainment" setting.



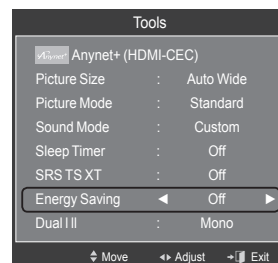
◆ Energy Saving: Off/Low/Medium/High/Auto

This feature adjusts the brightness of the TV in order to reduce power consumption. When watching TV at night, set the "Energy Saving" mode option to "High" to reduce eye fatigue as well as power consumption.

- **Off**: Turns off the energy saving function.
- **Low**: Sets the TV to low energy saving mode.
- **Medium**: Sets the TV to medium energy saving mode.
- **High**: Sets the TV to high energy saving mode.
- **Auto**: Automatically adjusts the brightness of the TV screen in accordance with the scenes.

Easy Setting

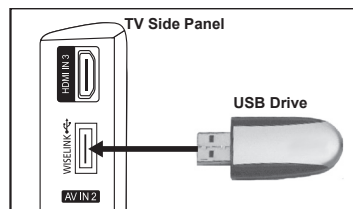
1. Press the **TOOLS** button on the remote control.
2. Press the **▲** or **▼** button to select "Energy Saving".
3. Press the **◀** or **▶** button to select the "Off", "Low", "Medium", "High", "Auto" or "On".
4. Press the **EXIT** or **TOOLS** button to exit.



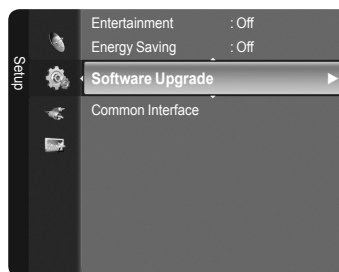
Upgrading the Software

To keep your product up-to-date with new Digital Television features then software upgrades are periodically broadcast as part of the normal Television signal. It will automatically detect these signals and display the software upgrade banner. You are given the option to install the upgrade.

1. Insert a USB drive containing the firmware upgrade into the SERVICE port on the side of the TV.

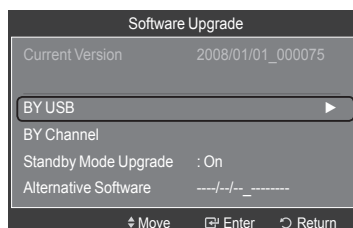


2. Press the **MENU** button to display the menu. Press the **▲** or **▼** button to select "Setup", then press the **ENTER** button.
3. Press the **▲** or **▼** button to select "Software Upgrade", then press the **ENTER** button.
4. Press the **▲** or **▼** button to select "BY USB", "BY Channel" or "Standby Mode Upgrade". Press the **ENTER** button.



◆ BY USB :

- **Preset** : Insert a USB drive containing the firmware upgrade into TV.
- Please be careful to not disconnect the power or remove the USB drive while upgrades are being applied. The TV will turn off and turn on automatically after completing the firmware upgrade. Please check the firmware version after the upgrades are complete. When software is upgraded, video and audio settings you have made will return to their default (factory) settings. We recommend you write down your settings so that you can easily reset them after the upgrade.



◆ BY Channel :

Upgrades the software using the broadcasting signal.

◆ Standby Mode Upgrade :

To continue software upgrade with master power on, Select On by pressing the **▲** or **▼** button. 45 minutes after entering standby mode, a manual upgrade is automatically conducted. Since the power of the unit is turned on internally, the screen may be on slightly for the LCD product. This phenomenon may continue for more than 1 hour until the software upgrade is completed.

◆ Alternative Software :

To display the software version information.

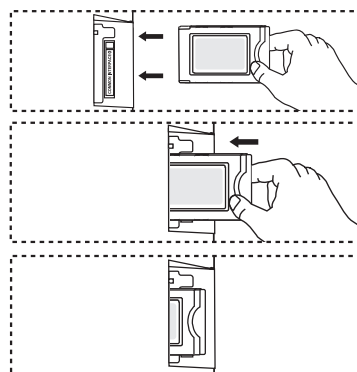
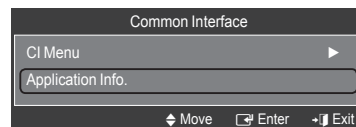
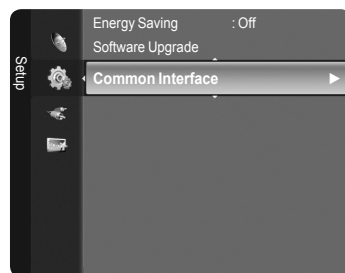
Viewing Common Interface

This contains information on CAM inserted in the CI slot and displays it.

1. Press the **MENU** button to display the menu.
Press the **▲** or **▼** button to select "Setup", then press the **ENTER** button.
2. Press the **▲** or **▼** button to select "Common Interface", then press the **ENTER** button.
3. Press the **▲** or **▼** button to select "Application Info."
Press the **ENTER** button to display the information for your application.
4. Press the **EXIT** button to exit.

➤ The Application Info inserting is about the CI CARD. You can install the CAM anytime whether the TV is ON or OFF.

1. Purchase the CI CAM module by visiting your nearest dealer or by phone.
2. Insert the CI CARD into the CAM in the direction of the arrow until it fits.
3. Insert the CAM with the CI CARD installed into the common interface slot.
(Insert the CAM in the direction of the arrow, right up to the end so that it is parallel with the slot.)
4. Check if you can see a picture on a scrambled signal channel.

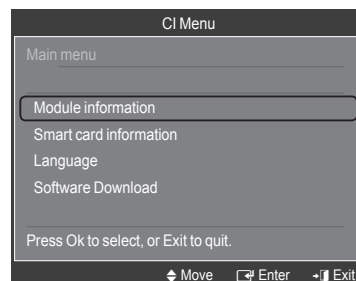
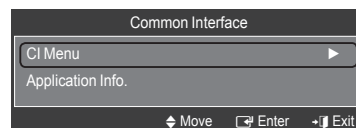
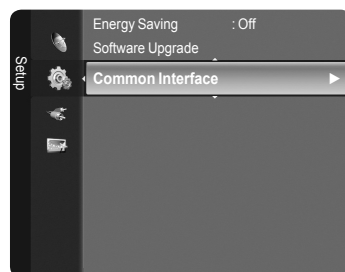


Selecting the CI (Common Interface) Menu

This enables the user to select from the CAM-provided menu.

1. Press the **MENU** button to display the menu.
Press the **▲** or **▼** button to select "Setup", then press the **ENTER** button.
2. Press the **▲** or **▼** button to select "Common Interface", then press the **ENTER** button.
3. Press the **▲** or **▼** button to select "CI Menu", then press the **ENTER** button.
4. Press the **▲** or **▼** button to select the required option, then press the **ENTER** button.
5. Press the **EXIT** button to exit.

➤ Select the CI Menu based on the menu PC Card.

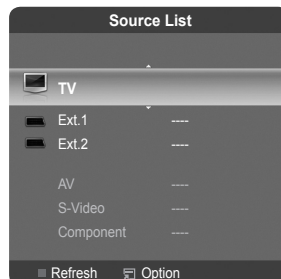
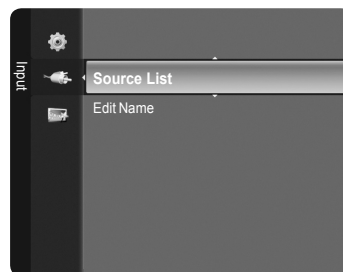



To Select the Source

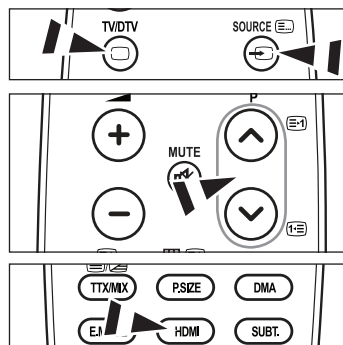
Use to select TV or other external input sources such as DVD players or Cable Box/Satellite receivers (Set-Top Box) connected to the TV. Use to select the input source of your choice.

1. Press the **MENU** button to display the menu.
Press the **▲** or **▼** button to select "Input", then press the **ENTER** button.
2. Press the **ENTER** button to select "Source List".
Press the **▲** or **▼** button to select signal source, then press the **ENTER** button.
 - Available signal sources: TV, Ext.1, Ext.2, AV, S-Video, Component, PC, HDMI1, HDMI2/DVI, HDMI3.
 - You can choose only those external devices that are connected to the TV. In the "Source List", connected inputs will be highlighted and sorted to the top. Inputs that are not connected will be sorted to the bottom.
 - **Using the Colour buttons on the remote with the Source list**

- **Red (Refresh)**: Refreshes the connecting external devices.
- **TOOLS (Option)**: Displays the "Edit Name" and "Information" menus.



-  Press the **SOURCE** button on the remote control to view an external signal source. TV mode can be selected by pressing the **TV/DTV** button, number buttons(0-9), and the **P ▲ / ▼** button on the remote control.

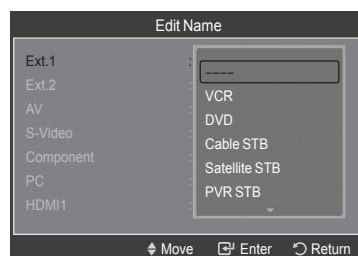
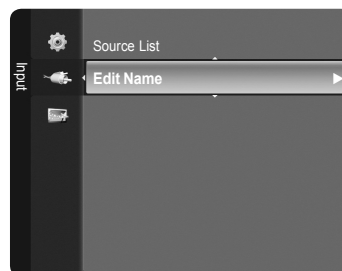


-  You can also watch HDMI mode simply by pressing the **HDMI** button on the remote control.

To Edit the Input Source Name

Name the device connected to the input jacks to make your input source selection easier.

1. Press the **MENU** button to display the menu.
Press the **▲** or **▼** button to select "Input", then press the **ENTER** button.
Press the **▲** or **▼** button to select "Edit Name", then press the **ENTER** button.
2. Press the **▲** or **▼** button to select "Ext.1", "Ext.2", "AV", "S-Video", "Component", "PC", "HDMI1", "HDMI2/DVI" or "HDMI3" input jack, then press the **ENTER** button.
3. Press the **▲** or **▼** button to select "VCR", "DVD", "Cable STB", "Satellite STB", "PVR STB", "AV Receiver", "Game", "Camcorder", "PC", "TV", "IPTV", "Blu-Ray", "HD DVD" or "DMA" input source, then press the **ENTER** button.
Press the **EXIT** button to exit.



PC Display

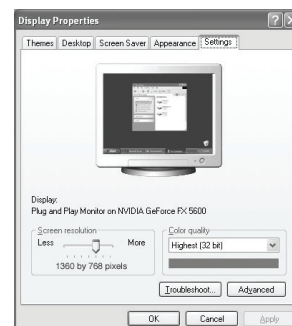
Using Your TV as a Computer (PC) Display

Setting Up Your PC Software (Based on Windows XP)

The Windows display-settings for a typical computer are shown below. The actual screens on your PC will probably be different, depending upon your particular version of Windows and your particular video card. However, even if your actual screens look different, the same basic set-up information will apply in almost all cases. (If not, contact your computer manufacturer or Samsung Dealer.)

1. First, click on "Control Panel" on the Windows start menu.
2. When the control panel window appears, click on "Appearance and Themes" and a display dialog-box will appear.
3. When the control panel window appears, click on "Display" and a display dialog-box will appear.
4. Navigate to the "Settings" tab on the display dialog-box.
The correct size setting (resolution)
Optimum: 1360 X 768 pixels

If a vertical-frequency option exists on your display settings dialog box, the correct value is "60" or "60 Hz". Otherwise, just click "OK" and exit the dialog box.



Display Modes

Both screen position and size will vary depending on the type of PC monitor and its resolution. The resolutions in the table are recommended.

D-Sub Input




Mode	Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock Frequency (MHz)	Sync Polarity (H/V)
IBM	640 x 350	31.469	70.086	25.175	+ / -
	720 x 400	31.469	70.087	28.322	- / +
VESA	640 x 480	31.469	59.940	25.175	- / -
	640 x 480	37.861	72.809	31.500	- / -
	640 x 480	37.500	75.000	31.500	- / -
	800 x 600	37.879	60.317	40.000	+ / +
	800 x 600	48.077	72.188	50.000	+ / +
	800 x 600	46.875	75.000	49.500	+ / +
	1024 x 768	48.363	60.004	65.000	- / -
	1024 x 768	56.476	70.069	75.000	- / -
	1024 x 768	60.023	75.029	78.750	+ / +
	1360 x 768	47.712	60.015	85.500	+ / +

HDMI/DVI Input

Mode	Resolution	Horizontal Frequency (kHz)	Vertical Frequency (Hz)	Pixel Clock Frequency (MHz)	Sync Polarity (H/V)
VESA	640 x 480	31.469	59.940	25.175	- / -
	800 x 600	37.879	60.317	40.000	+ / +
	1024 x 768	48.363	60.004	65.000	- / -
	1360 x 768	47.712	60.015	85.500	+ / +

- When using an HDMI/DVI cable connection, you must use the HDMI IN 2 jack.
- The interlace mode is not supported.
- The set might operate abnormally if a non-standard video format is selected.
- Separate and Composite modes are supported. SOG is not supported.

Setting up the TV with your PC


- Preset: Press the **SOURCE** button to select PC mode.
- 1. Press the **MENU** button to display the menu.
Press the **▲** or **▼** button to select "Picture", then press the **ENTER**  button.
- 2. Select the required option by pressing the **▲** or **▼** button, then press the **ENTER**  button.
- 3. When you are satisfied with your setting, press the **ENTER**  button.
- 4. Press the **EXIT** button to exit.

How to Auto Adjust

Auto Adjustment allows the PC screen of set to self-adjust to the incoming PC video signal. The values of fine, coarse and position are adjusted automatically.

- This function does not work in DVI-HDMI mode.


Easy Setting

1. Press the **TOOLS** button on the remote control.
2. Press the **▲** or **▼** button to select "Auto Adjustment", then press the **ENTER**  button.

Adjusting the Screen Quality

Coarse/Fine

The purpose of picture quality adjustment is to remove or reduce picture noise. If the noise is not removed by Fine-tuning alone, then adjust the frequency as best as possible (coarse) and Fine-tune again. After the noise has been reduced, readjust the picture so that it is aligned on the center of screen.

Press the **▲** or **▼** button to select "Coarse" or "Fine", then press the **ENTER**  button.

Press the **◀** or **▶** button to adjust the screen quality.

Press the **ENTER**  button.

PC Position

Adjust the PC's screen positioning if it does not fit the TV screen.

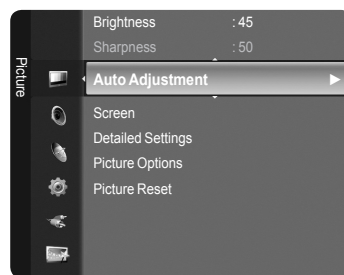
Press the **▲** or **▼** button to adjusting the Vertical-Position.

Press the **◀** or **▶** button to adjust the Horizontal-Position.

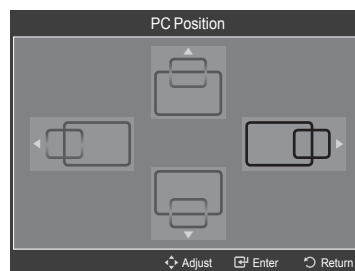
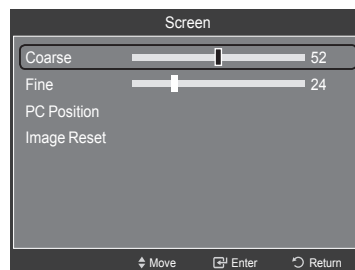
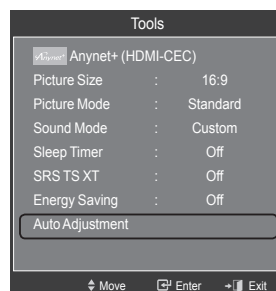
Press the **ENTER**  button.

Image Reset

You can replace all image settings with the factory default values.



⚠ Auto Adjustment in progress. Please Wait.



⚠ Image Reset is completed.

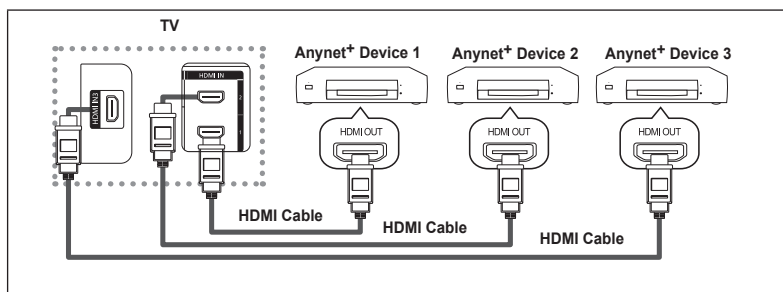
About Anynet+

What is Anynet+?

Anynet+ is a function that enables you to control all connected Samsung devices that support Anynet+ with your Samsung TV's remote.

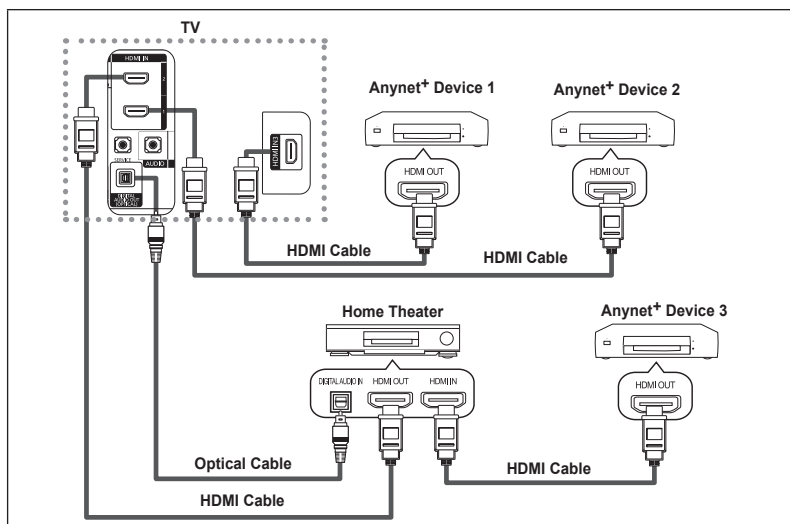
Connecting Anynet+ Devices

The Anynet+ system can be used only with Samsung devices that have the Anynet+ feature. To be sure your Samsung device has this feature, check if there is an Anynet+ logo on it.



To connect to a TV

Connect the [HDMI 1], [HDMI 2] or [HDMI 3] jack on the TV and the HDMI OUT jack of the corresponding Anynet+ device using an HDMI cable.



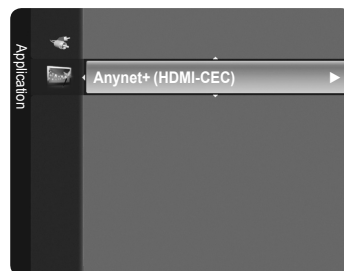
To connect to Home Theater

1. Connect the [HDMI 1], [HDMI 2] or [HDMI 3] jack on the TV and the HDMI OUT jack of the corresponding Anynet+ device using an HDMI cable.
2. Connect the HDMI IN jack of the home theater and the HDMI OUT jack of the corresponding Anynet+ device using an HDMI cable.

- Connect the Optical cable between the Digital Audio Out (Optical) jack on your TV and the Digital Audio Input on the Home Theater.
- When following the connection above, the Optical jack only outputs 2 channel audio. You will only hear sound from the Home Theater's Front Left and Right speakers and the subwoofer. If you want to hear 5.1 channel audio, connect the Digital Audio Out (Optical) jack on the DVD player or Cable/Satellite Box (ie Anynet Device 1 or 2) directly to the Amplifier or Home Theater, not the TV.
- Connect only one Home Theater.
- You can connect an Anynet+ device using the HDMI cable. Some HDMI cables may not support Anynet+ functions.
- Anynet+ works when the AV device supporting Anynet+ is in the Standby or On status.
- Anynet+ supports up to 12 AV devices in total. Note that you can connect up to 3 devices of the same type.

Setting Up Anynet+

1. Press the **MENU** button to display the menu. Press the **▲** or **▼** button to select "Application", then press the **ENTER** button.
2. Press the **▲** or **▼** button to select "Anynet+(HDMI-CEC)", then press the **ENTER** button.
3. Select the required option by pressing the **▲** or **▼** button, then press the **ENTER** button.
4. When you are satisfied with your setting, press the **ENTER** button.
5. Press the **EXIT** button to exit.



Anynet+(HDMI-CEC)

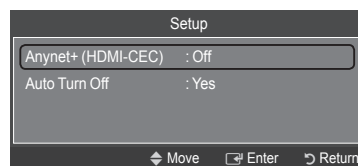
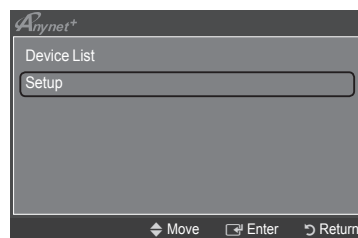
To use the Anynet+ Function, "Anynet+(HDMI-CEC)" must be set to On.

- When the "Anynet+ (HDMI-CEC)" function is disabled, all the Anynet+ related operations are deactivated.

Auto Turn Off

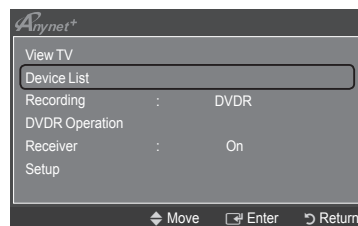
Setting an Anynet+ Device to turn Off Automatically when the TV is Turned Off.

- The active source on the TV remote must be set to TV to use the Anynet+ function.
- If you set "Auto Turn Off" to "Yes", connected external devices are also turned off when the TV is turned off. If an external device is still recording, it may or may not turn off.



Scanning and Switching between Anynet+ Devices

1. Press the **TOOLS** button. Press the **ENTER** button to select "Anynet+ (HDMI-CEC)".
2. Press the **▲** or **▼** button to select "Device List", then press the **ENTER** button
 - Anynet+ devices connected to the TV are listed. If you cannot find a device you want, press the red button to scan for devices.
 - Only when you set "Anynet+ (HDMI-CEC)" to On in the "Setup" menu, the "Device List" menu appears.
3. Press the **▲** or **▼** button to select a particular device and press the **ENTER** button. It is switched to the selected device.



- Switching to the selected devices may take up to 2 minutes. You cannot cancel the operation during the switching operation.
- The time required to scan for devices is determined by the number of connected devices.
- When the device scan is complete, the number of devices found are not displayed.
- Although the TV automatically searches the device list when the TV is turned on via the power button, devices connected to the TV when the TV is on or under some conditions are not automatically displayed in the device list. Press the red button to search for the connected device.
- If you have selected external input mode by pressing the **SOURCE** button, you cannot use the Anynet+ function. Make sure to switch to an Anynet+ device by using the "Device List".

Anynet+ Menu

The Anynet+ menu changes depending on the type and status of the Anynet+ devices connected to the TV.

Anynet+ Menu	Description
View TV	Anynet+ mode changes to TV broadcast mode.
Device List	Shows the Anynet+ device list.
(device_name) Menu	Shows the connected device menus. E.g. If a DVD recorder is connected, the disc menu of the DVD recorder will appear.
(device_name) Operation	Shows the play menu of the connected device. E.g. If a DVD recorder is connected, the play menu of the DVD recorder will appear.
Record: (*recorder)	Starts recording immediately using the recorder. (This is only available for devices that support the recording function.)
Stop Recording: (*recorder)	Stops recording.
Receiver	Sound is played through the receiver.

- If more than one recording device is connected, they are displayed as (*recorder) and if only one recording device is connected, it will be represented as (*device_name).

TV Remote Control Buttons Available in Anynet+ Mode

Device Type	Operating Status	Available Buttons
Anynet+ Device	After switching to the device, when the menu of the corresponding device is displayed on the screen.	Numeric buttons ▲/▼/◀/▶/ENTER ⏏ buttons Colour buttons / EXIT button
	After switching to the device, while playing a file	◀◀(Backward search) / ▶▶(Forward search) ■(Stop) / ▶(Play) / ⏏(Pause)
Device with built-in Tuner	After switching to the device, when you are watching a TV program	P ▼ / P ▲ button
Audio Device	When Receiver is activated	Volume / MUTE button

- The Anynet+ function only works when the active source on the TV remote control is set to TV.
- The ⏏ button works only while in the recordable state.
- You cannot control Anynet+ devices using the buttons on the TV. You can control Anynet+ devices only using the TV remote control.
- The TV remote control may not work under certain conditions. In this case, reselect the Anynet+ device.
- The Anynet+ functions do not operate with other manufacturers' products.
- The ◀◀, ▶▶ operations may differ depending on the device.

Recording

You can make a recording of a TV program using a Samsung recorder.

1. Press the **TOOLS** button.
Press the **ENTER** ⏏ button to select "Anynet+ (HDMI-CEC)".
2. Press the ▲ or ▼ button to select "Recording: (device_name)", then press the **ENTER** ⏏ button. Recording begins.

When there is more than one recording device

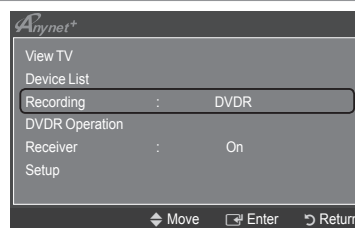
When multiple recording devices are connected, the recording devices are listed. Press the ▲ or ▼ button to select a recording device and press the **ENTER** ⏏ button. Recording begins.

When the recording device is not displayed

Select "Device List" and press the red button to search devices.


Press the **EXIT** button to exit.

- You can record the source streams by selecting "Recording: (device_name)".
- Pressing the ⏏ button will record whatever you are currently watching. If you are watching video from another device, the video from the device is recorded.
- Before recording, check whether the antenna jack is properly connected to the recording device. To properly connect an antenna to a recording device, refer to the recording device's users manual.





Listening through a Receiver (Home theater)

You can listen to sound through a receiver instead of the TV speaker.

1. Press the **TOOLS** button. Press the **ENTER**  button to select "Anynet+ (HDMI-CEC)".
2. Press the **▲** or **▼** button to select "Receiver". Press the **◀** or **▶** button to select "On" or "Off".
3. Press the **EXIT** button to exit.
 - If your receiver supports audio only, it may not appear in the device list.
 - The receiver will work when you have properly connected the Optical IN jack of the receiver to the Optical Out jack of the TV.
 - When the receiver (home theater) is set to On, you can hear sound output from the TV's Optical jack. When the TV is displaying a DTV(air) signal, the TV will send out 5.1 channel sound to the Home theater receiver. When the source is a digital component such as a DVD and is connected to the TV via HDMI, only 2 channel sound will be heard from the Home Theater receiver.
 - When listening through the receiver, there are restrictions for using the audio-related menus.
 - If there is a power interruption to the TV when the "Receiver" is set to "On" (by disconnecting the power cord or a power failure), the "Select Speaker" may be set to "External Speaker" when you turn the TV on again. (see page 33)



Troubleshooting for Anynet+














Symptom	Solution
Anynet+ does not work.	<ul style="list-style-type: none"> • Check if the device is an Anynet+ device. The Anynet+ system supports Anynet+ devices only. • Connect only one receiver (home theater). • Check if the Anynet+ device power cord is properly connected. • Check the Anynet+ device's Video/Audio/HDMI cable connections. • Check whether Anynet+ (HDMI-CEC) is set to On in the Anynet+ setup menu. • Check whether the TV remote control is in TV mode. • Check whether it is Anynet+ exclusive remote control. • Anynet+ doesn't work at a certain condition. (Searching channels, Plug & Play, etc.) • When connecting or removing the HDMI cable, please make sure to search devices again or turn your TV off and on again. • Check if the Anynet+ Function of Anynet+ device is set on.
I want to start Anynet+.	<ul style="list-style-type: none"> • Check if the Anynet+ device is properly connected to the TV and check if the Anynet+ (HDMI-CEC) is set to On in the Anynet+ Setup menu. • Press the TV button on the TV remote control to switch to TV. Then press the TOOLS button to show the Anynet+ menu and select a menu you want.
I want to exit Anynet+.	<ul style="list-style-type: none"> • Select View TV in the Anynet+ menu. • Press the SOURCE button on the TV remote control and select a device other than Anynet+ devices. • Press P  /  and PRE-CH to change the TV mode. (Note that the channel button operates only when a tuner-embedded Anynet+ device is not connected.)
The message Connecting to Anynet+ device... appears on the screen.	<ul style="list-style-type: none"> • You cannot use the remote control when you are configuring Anynet+ or switching to a view mode. • Use the remote control when the Anynet+ setting or switching to view mode is complete.
The Anynet+ device does not play.	You cannot use the play function when Plug & Play is in progress.
The connected device is not displayed.	<ul style="list-style-type: none"> • Check whether or not the device supports Anynet+ functions. • Check whether or not the HDMI cable is properly connected. • Check whether Anynet+ (HDMI-CEC) is set to On in the Anynet+ setup menu. • Search Anynet+ devices again. • You can connect an Anynet+ device using the HDMI cable only. Some HDMI cables may not support Anynet+ functions. • If it is terminated by an abnormal situation such as disconnecting the HDMI cable or power cord or a power failure, please repeat the device scan.
The TV program cannot be recorded.	Check whether the antenna jack on the recording device is properly connected.
The TV sound is not output through the receiver.	Connect the optical cable between TV and the receiver.

Recommendations for Use

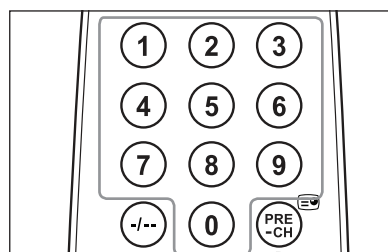
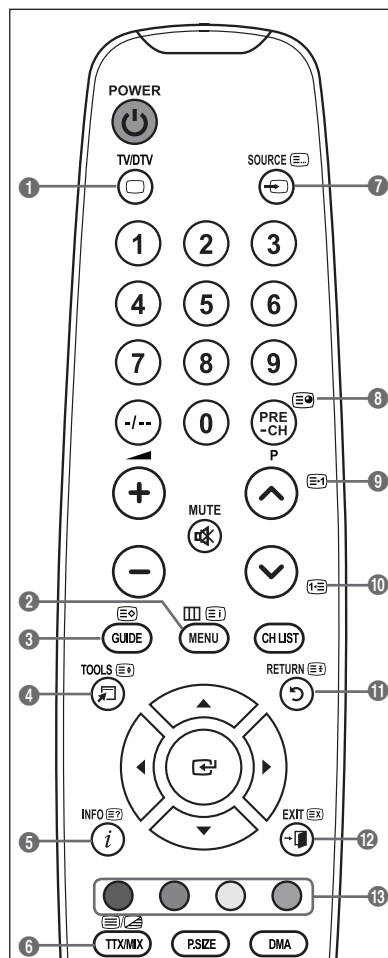
Teletext Feature

Most television stations provide written information services via Teletext. The index page of the teletext service gives you information on how to use the service. In addition, you can select various options to suit your requirements by using the remote control buttons.

- For teletext information to be displayed correctly, channel reception must be stable. Otherwise, information may be missing or some pages may not be displayed.

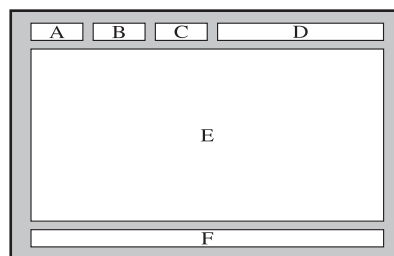
- 1  **(exit)**
Exit from the teletext display.
- 2  **(index)**
Used to display the index (contents) page at any time while you are viewing teletext.
- 3  **(store)**
Used to store the teletext pages.
- 4  **(size)**
Press to display the double-size letters in the upper half of the screen. For lower half of the screen, press it again. To display normal screen, press it once again.
- 5  **(reveal)**
Used to display the hidden text (answers to quiz games, for example). To display normal screen, press it again.
- 6  **(teletext on/mix)**
Press to activate teletext mode after selecting the channel providing the teletext service. Press it twice to overlap the teletext with the current broadcasting screen.
- 7  **(mode)**
Press to select the teletext mode (LIST/FLOF). If you press it in the LIST mode, it switches into the List save mode. In the List save mode, you can save teletext page into list using the  (store) button.
- 8  **(sub-page)**
Used to display the available sub-page.
- 9  **(page up)**
Used to display the next teletext page.
- 10  **(page down)**
Used to display the previous teletext page.
- 11  **(hold)**
Used to hold the display on a given page if the selected page is linked with several secondary pages which follow on automatically. To resume, press it again.
- 12  **(cancel)**
Used to display the broadcast when searching for a page.
- 13 **Colour buttons (red/green/yellow/blue)**
If the FASTEXT system is used by a broadcasting company, the different topics covered on a teletext page are colour-coded and can be selected by pressing the coloured buttons. Press one of them corresponding to the required. The page is displayed with other coloured information that can be selected in the same way. To display the previous or next page, press the corresponding coloured button.

- You can change teletext pages by pressing the numeric buttons on the remote control.

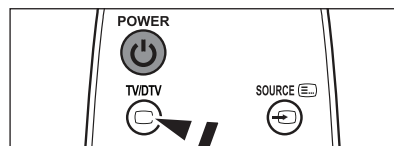


The teletext pages are organized according to six categories:

Part	Contents
A	Selected page number.
B	Broadcasting channel identity.
C	Current page number or search indications.
D	Date and time.
E	Text.
F	Status information. FASTEXT information.

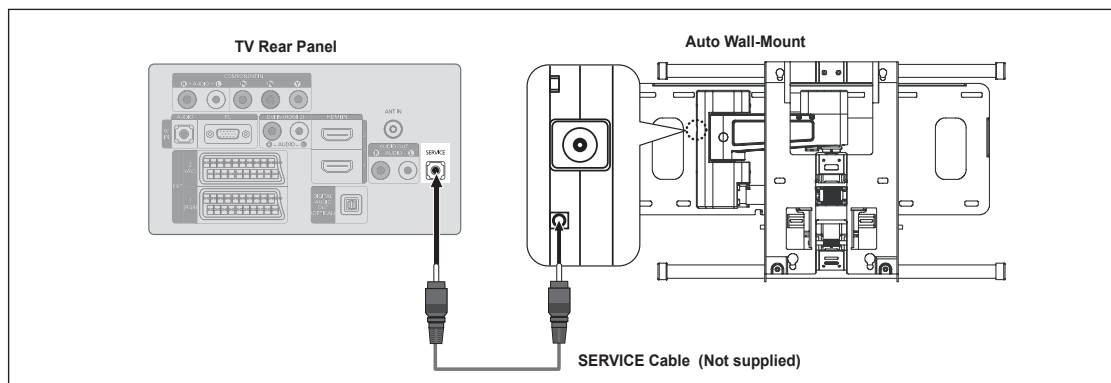


- Teletext information is often divided between several pages displayed in sequence, which can be accessed by:
 - Entering the page number
 - Selecting a title in a list
 - Selecting a coloured heading (FASTEXT system)
- Press the **TV/DTV** button to exit from the teletext display.



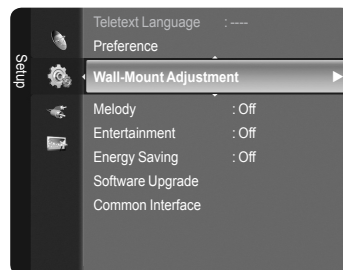
Auto Wall-Mount Adjustment (Sold separately) (depending on the model)

Once the auto wall mount is installed, your TV's position can be easily adjusted.



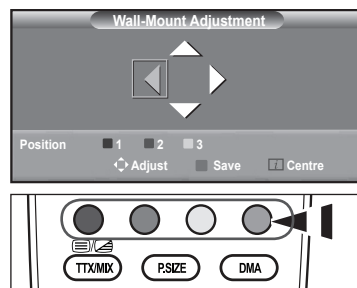
Entering the menu

1. Press the **▲**, **▼**, **◀** or **▶** button on your remote control.
 - The Wall Mount Adjustment screen is displayed.
 - If the Auto Wall-Mount screen is not displayed when clicking on a direction button while watching your TV, use the menu to display that screen.
 - Press the **MENU** button to display the menu. Press the **▲** or **▼** button to select "Setup", then press the **ENTER** button.
 - Press the **▲** or **▼** button to select "Wall-Mount Adjustment", then press the **ENTER** button.



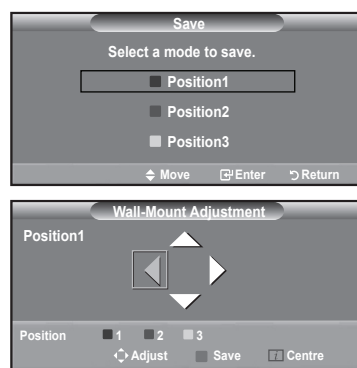
Remembering the Position

2. Adjust to the desired position using the ▲, ▼, ◀, ▶ buttons.
 - If you press an arrow button when no OSD is displayed on the TV screen, the Adjustment screen appears.
 - Press the **INFO** button to reset. Press the ◀ or ▶ button to select "Yes", then press the **ENTER** button. The position is initialized to the default setting.
3. Press the blue button.
 - Press the ▲ and ▼ buttons to select a save mode from either Position 1, Position 2 or Position 3 in order to save the current position.
 - To not save the current position, press the **RETURN** button.
 - When selecting a save mode, you cannot use the Colour buttons.
4. Press the **ENTER** button to save.
 - When Position1 is selected, the message "Current position saved as Position1" is displayed.
5. Press the **ENTER** button.
 - The saved Position appears on the left side of the OSD.



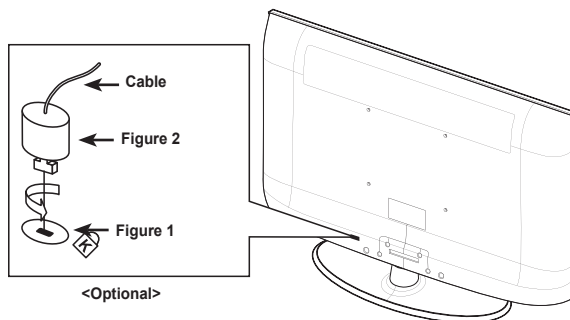
Moving to the remembered position

1. Complete Step 1 of "Entering the menu".
 2. Pressing a Colour (Red, Green, Yellow) button moves the auto wall mount to the saved position.
 - You can move the wall mount to one of the 3 pre-set positions by pressing the Red (Position 1), Green (Position 2) or Yellow (Position 3) buttons.
 - If you adjust the Position after moving to a pre-set position, the position display will disappear.
- For installation, refer to the Installation Manual provided with the wall mount.
 - For product installation and the installation and moving of the wall mount, make sure to consult a specialized installation company.
 - This installation manual is to be used when attaching the wall mount to a wall. When attaching to other building materials, please contact your nearest dealer.
 - The auto wall mount will not work when Anynet+ is operating.
 - 37 and 40 models are not compatible with the older wall mount model (WMN5090A).



Using the Anti-Theft Kensington Lock (depending on the model)

The Kensington Lock is a device used to physically fix the system when using it in a public place. The appearance and locking method may differ from the illustration depending on the manufacturer. Refer to the manual provided with the Kensington Lock for proper use. The locking device has to be purchased separately.



➤ The location of the Kensington Lock may be different depending on its model.

1. Insert the locking device into the Kensington slot on the LCD TV (Figure 1) and turn it in the locking direction (Figure 2).
2. Connect the Kensington Lock cable.
3. Fix the Kensington Lock to a desk or a heavy stationary object.

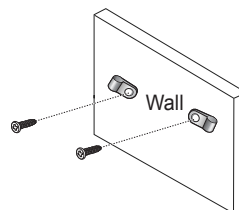
Securing the TV to the Wall



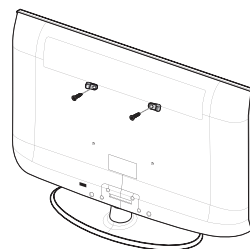
Caution: Pulling, pushing, or climbing on the TV may cause the TV to fall. In particular, ensure your children do not hang over or destabilize the TV; doing so may cause the TV to tip over, causing serious injuries or death. Follow all safety precautions provided on the included Safety Flyer. For added stability, install the anti-fall device for safety purposes, as follows.

To avoid the TV from falling:

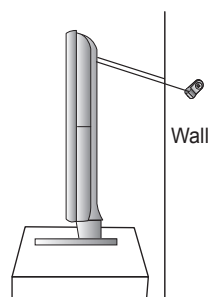
1. Put the screws into the clamps and firmly fasten them onto the wall. Confirm that the screws have been firmly installed onto the wall.
 - You may need additional material such as an anchor depending on the type of wall.
 - Since the necessary clamps, screws, and string are not supplied, please purchase these additionally.




2. Remove the screws from the center back of the TV, put the screws into the clamps, and then fasten the screws onto the TV again.
 - Screws may not be supplied with the product. In this case, please purchase the screws of the following specifications.
Screw Specifications
 - For a 17 ~ 29 Inch LCD TV: M4 X 15
 - For a 32 ~ 40 Inch LCD TV: M6 X 15



3. Connect the clamps fixed onto the TV and the clamps fixed onto the wall with a strong string and then tie the string tightly.
 - Install the TV near to the wall so that it does not fall backwards.
 - It is safe to connect the string so that the clamps fixed on the wall are equal to or lower than the clamps fixed on the TV.
 - Untie the string before moving the TV.
4. Verify all connections are properly secured. Periodically check connections for any sign of fatigue for failure. If you have any doubt about the security of your connections, contact a professional installer.



Troubleshooting: Before Contacting Service Personnel

No sound or picture	<ul style="list-style-type: none"> • Check that the mains lead has been connected to a wall socket. • Check that you have pressed the button on your set. • Check the picture contrast and brightness settings. • Check the volume.
Normal picture but no sound	<ul style="list-style-type: none"> • Check the volume. • Check whether the MUTE  button has been pressed on the remote control. • Check the "Select Speaker" settings.
Screen is black and power indicator light blinks steadily	<ul style="list-style-type: none"> • On your computer check; Power, Signal Cable. • The TV is using its power management system. • Move the computer's mouse or press any key on the keyboard.
No picture or black and white picture	<ul style="list-style-type: none"> • Adjust the colour settings. • Check that the broadcast system selected is correct.
Sound and picture interference	<ul style="list-style-type: none"> • Try to identify the electrical appliance that is affecting the set and move it further away. • Plug your set into a different mains socket.
Blurred or snowy picture, distorted sound	<ul style="list-style-type: none"> • Check the direction, location and connections of your aerial. • This interference is often due to the use of an indoor aerial.
Remote control malfunctions	<ul style="list-style-type: none"> • Replace the remote control batteries. • Clean the upper edge of the remote control (transmission window). • Check the battery terminals.
'Check signal cable.' message is displayed	<ul style="list-style-type: none"> • Check that the signal cable is firmly connected to the PC or video sources. • Check that the PC or video sources are turned on.
On PC mode, 'Not Supported Mode.' message is displayed	<ul style="list-style-type: none"> • Check the maximum resolution and the frequency of the video adaptor. • Compare these values with the data in the Display Modes.
The damaged picture appears in the corner of the screen	If "Just Scan" is selected in some external devices, the damaged picture may appear in the corner of the screen. This symptom is caused by external devices, not TV.
The 'Resets all settings to the default values.' message appears.	This appears when you press and hold the EXIT button for a while. The product settings are reset to the factory defaults.

The TFT LCD panel uses a panel consisting of sub pixels (3 133 440) which require sophisticated technology to produce. However, there may be few bright or dark pixels on the screen. These pixels will have no impact on the performance of the product.

Technical and Environmental Specifications

Model Name	LE32A446 / LE32A447	LE37A446 / LE37A447
Screen Size (Diagonal)	32 inch	37 inch
PC Resolution (Optimum)	1360 X 768 @ 60 Hz	1360 X 768 @ 60 Hz
Sound Output	10W x 2	10W x 2
Dimensions (WxDxH)		
Body	796 X 79 X 531 mm	916 X 87 X 572 mm
With stand	796 X 252 X 580 mm	916 X 300 X 652 mm
Weight		
With stand	13 kg	18 kg
Environmental Considerations		
Operating Temperature	10 °C to 40 °C (50 °F to 104 °F)	10 °C to 40 °C (50 °F to 104 °F)
Operating Humidity	10 % to 80 %, non-condensing	10 % to 80 %, non-condensing
Storage Temperature	-20 °C to 45 °C (-4 °F to 113 °F)	-20 °C to 45 °C (-4 °F to 113 °F)
Storage Humidity	5 % to 95 %, non-condensing	5 % to 95 %, non-condensing
Stand Swivel (Left / Right)	-20° ~ 20°	-20° ~ 20°

Model Name	LE40A446 / LE40A447
Screen Size (Diagonal)	40 inch
PC Resolution (Optimum)	1360 X 768 @ 60 Hz
Sound Output	10W x 2
Dimensions (WxDxH)	
Body	971 X 87 X 628 mm
With stand	971 X 300 X 687 mm
Weight	
With stand	21 kg
Environmental Considerations	
Operating Temperature	10 °C to 40 °C (50 °F to 104 °F)
Operating Humidity	10 % to 80 %, non-condensing
Storage Temperature	-20 °C to 45 °C (-4 °F to 113 °F)
Storage Humidity	5 % to 95 %, non-condensing
Stand Swivel (Left / Right)	-20° ~ 20°

- Design and specifications are subject to change without prior notice.
- This device is a Class B digital apparatus.
- For the power supply and Power Consumption, refer to the label attached to the product.